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ABSTRACT

The following papers on subject in South Asian languages are compiled here: (1) "Subject in Sanskrit" by George Cardona: (2) "Is Sinhala a Subject Language? (or, How Restricted is Your PNP?)" by James W. Gair: (3) "Some Syntactic Reflexes of Sub-Categories of Agent in Hindi" by Peter Edwin Hook; (4) "The Notion 'Subject,' a Note on Hindi-Urdu, Kashmiri and Panjabi" by Yamuna Kachru, Braj B. Kachru, and Tej K. Bhatia; (5) "The Notion of Subject and Agent in Hindi" by Anjani Kumar Sinha; (6) "Subjecthood, Reflexivization, Emphatic Pronominalization and Clause Matedness in Bengali (with Some Side Glances at Hindi)" by M. H. Klaiman; (7) "Nested Caste Relations and the Subject in Tamil" by James M. Lindholm: (8) "Dative Subject in Malayalam" by David W. McAlpin; (9) "From Passive to Ergative in Indo-Aryan" by Bruce R. Pray; (10) "The Notion of 'Subject' in Kannada" by S. N. Sridhar; (11) "Subject in Gujarati: An Examination of Verb-Agreement Phenomenon" by P. J. Mistry: and (12) "The Notion of Subject and the Data from Nepali" by M. K. Verma. (JB)

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THE NOTION OF SUBJECT
IN SOUTH ASIAN LANGUAGES

Edited by
Manindra K. Verma

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PREFACE

All the papers in this volume were initially presented at the Symposium on the Notion of Subject in South Asian Languages sponsored by the Center and Department of South Asian Studies and the Department of Linguistics of the University of Wisconsin, Madison in August 1975. That South Asian languages present an interesting picture in regard to the question of subject has been apparentfor some time, but no systematic investigations had been undertaken until this Symposium. South Asian languages have been interesting from another point of view also. They bring together languages of diverse language families, chiefly Indo-European and Dravidian, but seem to share syntactic behaviors in regard to 'subject' and many other features in a significant way. This ought to throw some light on the relative importance of genetic and areal affinities. The papers presented here afford an opportunity to obtain straightforward information on relevant data as well as comparable data in different languages which many South Asian linguists themselves might have been unaware of or unfamiliar with. Thus, since 'South Asian' not a 'genetic' but 'areal' term, the studies presented here become both theoretically and typologically interesting.

There are numerous questions of theoretical interest that these papers raise. Is the notion of subject morphological or syntactic in nature? A central question that emerges is: what should and can provide a consistent and worthwhile criterion for syntactic subjecthood-morphology, agreement, or what? The papers explore many aspects, but there certainly is a very apparent concern with the status of the 'dative subject' of South Asian languages. The main thrust is: how do you identify the subject? In view of the phenomenon of agreement that gets skewed in South Asian languages, it presents an interesting problem in the determinations of the criteria.

Beyond the question of the identification of the subject is the significant question as to how various syntactic rules may be sensitive to this grammatical entity in South Asian languages. Rules, such as, conjunction formation, equi-NP, reflexivization, etc., as reflected in sentences like -

apne kapre raam ḳhari̲i̲dataa bhii nahii hai aur syaam ko
pasand bhii nahii hâĩ

raam ne apne ko dekhaa
*apne ne raam ko dekhaa

mujhko to bas paisaa caahiye
apne ko to bas paisaa caahiye

There does seem to be a good deal of correlation between 'volition' and 'agenthood' in South Asian languages, which seems to play an important part in subject demotion (or promotion) and its morphological encoding. The dative is less of an agent than the nominative; the instrumental is less of an agent than the dative. Is there a hierarchy involved?

In a sense, subject could be regarded as the most prominent argument that the verb or predicator has in a construction. The 'role' of the argument may, of course, be different depending on the semantic-syntactic nature of the verb or predicator. It is quite likely that it is this difference in the 'role' that is sought to be encoded in different ways in South Asian languages. A case in point would be the fact that 'stativeness' in South Asian language has a penchant for demoting the subject to the dative status. There may, further, be another dimension involved, namely, 'topic'. But then in a sense it would seem that subject and topic are rather closely associated in the sense of mutuality of encoding in South Asian languages. Thus, when an inanimate object is to be the topic it does become the subject (and chooses the intransitive counterpart of the verb). The agent subject is then demoted to a dative, or whatever, as not being relevant or, at least, as not identified as the main topic of the sentence. In those cases, where there is no appropriate intransitive verb available, the passive construction is used. This ties in with the rather well-recognized (universal?) feature of passivization accomplishing the purpose of making the object the topic and demoting the true subject. The instrumental subject of the passive and the instrumental subject of the intransitive in Hindi, for example, are quite comparable.

mujhse rakkhaa gayaa - passive
mujhse ṭuuṭ gayaa - intransitive

South Asian languages have fewer instances of passive constructions because of the availability of intransitive verbs (of the non-active type). In one way, it ties in with the observation that topic prominent languages have passivization only as a marginal construction.

Finally, I would like to add a word of apology and explanation. I have not referred to or commented upon specific papers to elucidate the points made above. I was tempted to. But apart from the fact that some of the points are not clearly or purposefully made in any of the papers I was afraid I might become guilty of misrepresenting the views of the authors. I would let the readers establish whatever connections or relevance might exist between the overall comments made above and the specific papers presented in this volume.

Manindra K. Verma

Subject in Sanskrit

George Cardona
University of Pennsylvania

§ 0. Pāṇini does not operate with a relation precisely equivalent to what one would call a subject of a sentence.[1] This is of interest. For subject is an important notion in many modern grammatical systems and Pāṇini's grammar of Sanskrit, the Aṣṭādhyāyī, is, without any doubt, the most sophisticated ancient grammar known. I shall discuss here some Sanskrit constructions to point out some problems one encounters in using subject of sentence to describe Sanskrit and show briefly how Pāṇini does without this.

§ 1. If one is to use the relation subject of sentence, this relation should be susceptible of definition. One should also be able to use this to make some generalizations through relating certain sentences with each other. Moreover, it would be desirable to relate this formal relation to some semantic relation such as subject of predication. Of course, precisely how one proceeds depends on what one conceives a grammar to be and what one wishes it to accomplish. Let us assume that the grammar is a set of rules whereby the sentences of the language ---in this case Sanskrit ---are derived and some related to others. Even if one agrees on this, there is room for difference. Grammarians may disagree concerning the criteria to be used in characterizing given sentences; for example, on whether the truth value of sentences is a major consideration. Moreover, grammarians may differ on the precise mechanism for relating given sentences; for example, one may use transformations, another not. It will suffice to say that the Aṣṭādhyāyī is a set of rules --- about four thousand --- whereby sentences and their components are derived and certain sentences are related to others, though not through transformations as they are generally known.

§ 2. Let us begin by adopting a formal definition of 'subject of sentence' familiar to modern grammarians in a scheme of rewriting rules ('S ---> NP VP' etc.): the subject of a sentence is that noun phrase immediately dominated by the symbol 'S'. Let us also accept that Sanskrit has a word order which can be considered neutral or unmarked: *subject object verb*.[2] The noun *devadatta* is then the subject of

(1) devadatta odanaṃ pacati 'Devadatta is cooking rice.'

One can go farther and say that what finally appears as a nominative form is the subject of a sentence;[3] *devadatta-s* (--- *devadatta*) is such a form in (1), as is *odana*-s (--->*odanaḥ*) in the passive counterpart of (1):

(2) odanaḥ pacyate devadattena

One can also say that the formal subject of a sentence has as its semantic counterpart the subject of a predication. Passivizing a sentence such as (1) serves to make a given noun phrase --- the object of the verb --- subject, and this is semantically relevant in that the subject of the sentence signifies the subject of a predication. Thus, (1) and (2) can be paraphrased respectively by

(3) odana-vṛtti-viklitti-janaka-pāka-vyāpāravān devadattaḥ

'Devadatta is qualified as being the locus (that is, the performer) of the act of cooking (pāka-vyāpāra), which produces (janaka) softening (viklitti), the locus of which is rice (odana).'

(4) devadatta-niṣṭha-pāka-vyāpāra-janya-viklitti-śāly odanaḥ

'The rice is qualified as being the locus of softening, produced by cooking, which action is located in Devadatta.'

This is the kind of paraphrase given by certain Indian philosophers --- those of the Nyāya school --- who hold that the principal relatum in what is signified by a sentence such as (1) or (2) is what is denoted by a nominative form like devadattas or odanas.

There remains to state a rule whereby sentences such as (1) and (2) --- which I think all would agree should be related --- can be related to each other. One can formulate a rule of passivization whereby a structure

(a) N_1 N_2 V

in which N_1 is the subject of the sentence and N_2 the object of the verb, is converted to

(b) N_2 V N_1

where N_2 is subject and N_1 an adverbial phrase. Together with this are stated rules for case marking: a subject is followed by nominative endings, an object of a verb by accusative endings; an adverbial phrase resulting from passivization as above is followed by instrumental endings. And the verb of (b) is followed necessarily by mediopassive endings (te etc.) and ya if certain affixes are selected for the verb phrase. Moreover, concord rules can be stated in terms of the subject of the sentence: there is person-number concord between the subject and the verb if the affixes selected for the latter are finite endings like *ti*, *te*; if the post-verbal affix selected is one of a particular participial set, there is gender-number concord between the subject and the verb. Thus, (1) and (2) have third singular endings in agreement with the subjects of these sentences, as do

(5) devadatta odanam apākṣīt 'Devadatta cooked rice'

(6) odano pāci devadattena 'Rice was cooked by Devadatta.'

which differ from (1) and (2) in containing aorist instead of present forms of the verb *paç*. But in

(7) odanaḥ pakvo devadattena 'Rice was cooked by Devadatta.'

the participle *pakvaḥ* (nominative singular masculine) agrees in gender and number with *odanah.*

§ 3. Consider now the sentences

(8) devadatta āste 'Devadatta is seated.'

(9) devadattenâsyate 'id.' (passive)

(10) devadattaḥ svapiti 'Devadatta is sleeping.'

(11) devadattena supyate 'id.' (passive)

(12) devadattena suptam 'Devadatta slept.' (passive)

(13) devadattaḥ pacati 'Devadatta is cooking.'

(14) devadattena pacyate 'id.'

(15) devadattenâpāci 'Devadatta cooked.'

(16) devadattena pakvam 'id.'

These are like sentences cited earlier except for one feature. The formally passive sentences (9), (11)-(12), (14)-(16) show no concord variation for the verb, which occurs in the third singular or neuter singular alone. Instead of these sentences, one can have sentences in which are used the instrumental forms *puruṣaiḥ* 'by the men', *bālakaiḥ* 'by the children', *strībhiḥ* 'by the women'; but the verb forms will be the same:

(17) puruṣair āsyate

(18) bālakaiḥ supyate

(19) bālakaiḥ suptam

(20) strībhiḥ pacyate

(21) strībhir apāci

(22) strībhiḥ pakvam

Such formally passive sentences --- which one may call pseudopassives --- can also be accounted for by the rule of passivization (§ 2), with one modification: a structure to which passivization applies need not contain an object of the verb. Passivization in Sanskrit is not restricted to transitive verbs.[4] Pseudo-passives are derived if the verb has no object. Since, therefore, this now produces no subject, there is no concord between subject and verb. Instead, the neutral third singular and neuter singular forms occur. Though one may thus use a passive rule to derive such sentences, one must also accept a limitation: passivization here does not produce a subject of a sentence; correspondingly, there are sentences which, in the scheme adopted, do not signify subjects of predication.

§ 4. Consider now the following sentences.

(23) odanaḥ pacyate (svayam eva) 'The rice is cooking.'[5]

(24) odanena pacyate 'id.' (pseudopassive)

(25) odanenâpāci 'The rice cooked.' (pseudopassive)

(26) odanena pakvam 'id.'

(27) kusūlo bhidyate 'The grain pot is breaking.'

(28) kusūlena bhidyate

(29) kusulenâbhedi

(30) kusūlena bhinnam

(23) and (27) considered in isolation could be ambiguous. They could be elliptical sentences, understood in context as equivalent to (2) and

(31) devadattena kusūlo bhidyate

However, as related to (24)-(26) and (28)-(30), they have the meanings shown. Now, these last sentences are formally like (14)-(16). Yet they cannot be derived by the modified rule of passive formation (3). For (24)-(26) and (28)-(30) are not related to

(32) odanaḥ pacati

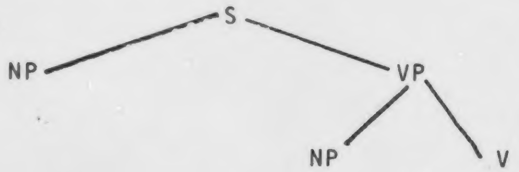
(33) kusūlo bhinatti

comparable to (13). (32) and (33) would have to mean that the rice and pot are cooking and breaking something else. One could, nevertheless, still derive the sentences in question through passivization. A procedure which is immediately apparent is as follows. Start with structures of the type

(34)			
	odana	odana	pac
	$\text{kusūla}_{\text{subj.}}$	$\text{kusūla}_{\text{obj.}}$	bhid

That is, start with a structure

(35)



in which the subject and object are identical and coreferential nouns. Let a deletion rule eliminate one of the coreferential nouns. In accord with sentences such as

(36) rājā bhṛtyān darśayate 'The king shows himself to his servants.'

(37) madhv ātmānaṃ pāyayate 'The liquor gets itself drunk.'

it is the object which is to be deleted. One could then let a rule provide that, when such deletion applies, the verb is subject to the same affixations which obtain in deriving pseudopassives like (14)-(16). But this is not sufficient. Another rule will have to allow one optionally to convert the subject left after deletion has applied to (35) to an adverbial phrase, this then marked with instrumental endings.[6]

This not only eliminates a subject of a sentence but also derives (24)-(26), (28)-(30) as totally different in structure from (14)-(16), which are passives. Yet I think one should agree that the structure of these sentences fairly cries for their being treated alike. If two sentences are to be given different derivations, it should be (14) and (23). Let us suppose, then, that (24)-(26), (28)-(30) could be derived in the present scheme as pseudopassives like (14)-(16). The fact would remain that such passivization serves to eliminate subjects. In effect, then, one has to give up one of the benefits of operating with 'subject of sentence', namely the neat correlation between this formal relation and the semantic relation subject of predication. Since not all sentences of Sanskrit have formal subjects, this correlation does not obtain everywhere.[7] Whether one should continue now to operate with a formal subject depends on how useful this relation is in accounting for other structures.

§ 5. Another structure for the description of which the formal subject of a sentence could be useful is embedded sentences. Sanskrit has sentences with a familiar structure, of the type

(38) yajñadatto devadattaṃ nagaraṃ gacchantam apaśyat 'Yajñadatta saw Devadatta as he (Devadatta) was going to town.'

and its passive counterpart

(39) yajñadattena devadatto nagaraṃ gacchan adṛśyata

One could procede here in familiar fashion, letting the subject of the embedded sentence be raised to become object in the verb phrase of the matrix sentence. The verb of the embedded sentence then receives a participial affix (*gacchat*- as opposed to *gacchati* 'goes'). The only immediate complication has to do with case marking. One could let the embedded sentence be subject to affixation rules applicable to any sentence and then replace the affixes already introduced by others, consequent upon raising. It would seem more economical, however, to allow only partial affixation within the embedded sentence, in this case to let *nagara* be followed by the accusative ending *am*. After raising, then, full affixation applies in the matrix sentence, to which also applies passivization. That only partial affixation takes place in the embedded sentence can, of course, be justified by the very fact that this is an embedded sentence. There are, however, some other complications. Consider now the sentences[8]

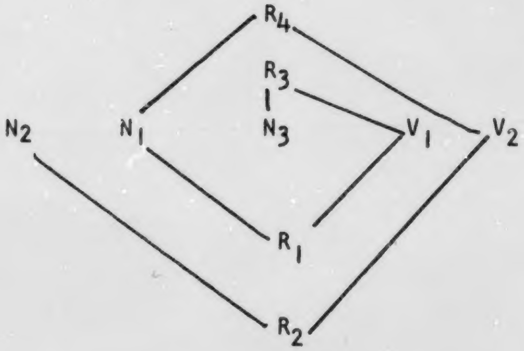
(40) yajñadatto devadattāya nagaraṃ gacchate pustakam adadāt 'Yajñadatta gave Devadatta a book as he (Devadatta) was going to town.'

(41) yajñadatto devadattān nagaraṃ gacchataḥ pustakam pratyagṛhṇāt 'Yajñadatta took a book from Devadatta as he was going to town.'

(42) devadatto nagaraṃ gacchati rathe sīdati 'Devadatta is sitting down in the car (chariot) going to town.'

A rule which serves to let the subject of an embedded sentence be raised to be object in the verb phrase of the matrix sentence, hence marked with the accusative ending (see §2), will obviously not do for such sentences. In fact, what is obvious is that the case marking for the subject of the embedded sentence depends on the relation this subject has to the verb of the matrix sentence. One could wonder, then, why, instead of operating with an embedded sentence the subject of which is raised to be made something else in the matrix sentence, one could not equally well operate with structures of the type

(43)



that is, structures which immediately show the relations (R_1 etc.) which obtain among components. (43) shows that N_1 simultaneously bears two relations, to V_1 and V_2, and, after all, it is this which is to be captured by embedding.[9] A structure like (43) fits in Pāṇini's system, which will be discussed in § 6. For the moment, however, consider the following sentences.

(44) devadattaḥ kumbhakāraṃ kumbhaṃ kurvantam apaśyat 'Devadatta saw the potter as he was making a pot.'

(45) devadattena kumbhakāraḥ kumbhaṃ kurvan adṛśyata

(46) devadattaḥ kumbhakāreṇa kriyamāṇaṃ kubmham apaśyat 'Devadatta looked at the pot as it was being made by the potter.'

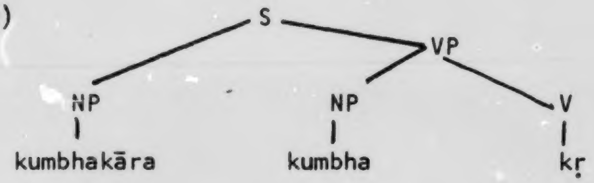
(47) devadattena kumbhakāreṇa kiryamāṇaḥ kumbho'dṛśyata

(48) devadattah kumbhakāreṇa kriyamāṇam kumbham abhinat 'Devadatta broke a pot as it was being made by the potter.'

(49) devadattena kumbhakāreṇa kriyamāṇaḥ kumbho'bhidyata

Let us take it as given that the active and passive pairs (44)-(45), (46)-(47) differ from each other in meaning just as they both differ from the pair (48)-(49). It is obvious that the matrix sentence can be passivized in each case. It is equally obvious that the embedded sentence of the type

(50)



is not equally free to be passivized or not. For deriving (46)-(49), this embedded sentence must be passivized before raising takes effect. In the context of a derivational system wherein the subject of a sentence is defined as noted in §1, one could account for this as follows. Passivization serves to "promote" an object to subject, a position of primacy related with the semantics of subjects and predications. It is this "promotion" through passivization that serves to bring out the semantic distinction between (44)-(45) and (46)-(47).

Such an approach could be considered at least partly satisfactory were it true for Sanskrit that passivization always served to "promote" objects to subjects. However, as I have noted (§§3-4), the very opposite is also true for Sanskrit: passivization serves to eliminate subjects.[10a]

In fact, given sentences such as those cited in §3, one can justifiably say that passivization in Sanskrit can have the effect of emphasizing the verb: (9) could, albeit awkwardly, be translated 'Sitting as performed by Devadatta is taking place.'

In sum, it is not obvious that one can best describe Sanskrit in terms of subjects of sentences, defined by the relation of elements in a derivational schema (a "tree") and correlated with subjects of predication. Nor, of course, is it necessarily true a priori that all sentences of any language should be analyzed to conform with the semantics of subject and predication.

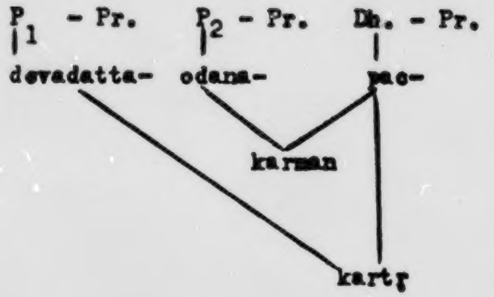
§ 6. Let us, then, turn to Pāṇini's system. Here a set of sentences such as (1) and (2) derives from a pair of alternate structures reducible to (51), namely (51a) and (51b).[10] These are to be interpreted as follows. The denotata of nominal bases (P_1 etc.) bear particular relations to the action denoted by the root *pac* such that they belong to particular grammatical categories: Devadatta is kartṛ, the rice karman.[11] Affixes are introduced to denote a kartṛ, a karman, etc. Thus, the line connecting *devadatta* to *pac* by way of 'kartṛ' shows that Devadatta bears a relation to cooking such that he is assigned to the category named kartṛ. The arrow connecting *laṭ* and 'kartṛ' in (51a) shows that the affix *laṭ* has been introduced to denote a kartṛ.

There is a hierarchy of such affixation rules: a post-nominal affix is introduced to denote, e.g., a kartṛ or a karman, if this is not denoted by a post-verbal affix. Thus, in (51b), the affix *ā* (instrumental singular) occurs to denote a kartṛ, but not in (51a), where *laṭ* is so used. The specific kartṛ, karman etc. in question are designated by particular lexical items. Moreover, all derivations have, from the very beginning, specific lexical items.

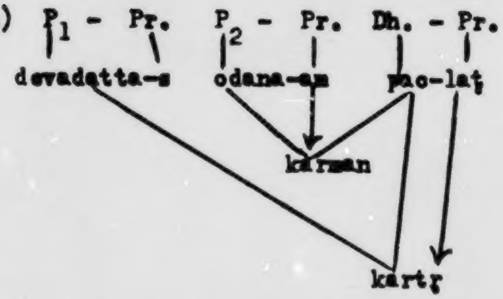
Sentences such as cited in §3 are similarly derived. If a verb in a given derivation is not associated with a karman, then an affix such as *laṭ* is introduced either to denote a kartṛ or on condition that the action (*bhāva*) is to be signified. The initial strings whence derive (13) and (14) as alternants are (52a) and (52b). To such initial strings apply rules of replacement whereby one ultimately arrives at sentences as used. For the present discussion it is necessary only to point out that *laṭ* and a series of other post-verbal affixes characterized by the symbol *l* (ten in all) are abstracts replaced by other affixes under stated conditions: *laṭ* in (51a) is replaced by *ti*, before which is then introduced *a* (*pac*-*a*-*ti*); *laṭ* in (51b) is replaced by *ta* (whence *te*), before which is then introduced *ya*(*pac*-*ya*-*te*). Further, *laṭ* is replaced by *ta* and other mediopassive endings not only when it signifies a karman but also in derivations such as (52b) takes part in; and here too *ta* (*te*) is preceded by *ya* (*pac*-*ya*-*te*).

Sentences such as (23) and (24) are derived in a similar manner. The initial strings for these are (53a), (53b). As in other derivation, *laṭ* is here replaced. However, a special rule applies here:

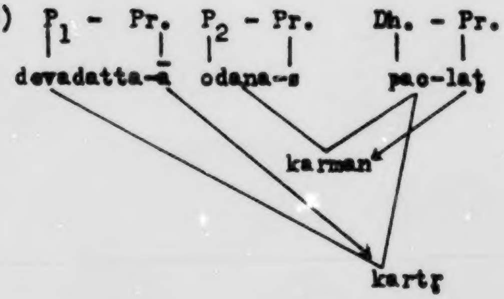
(51)


P1 - Pr.
P2 - Pr.
Dh. - Pr.
devadatta-
odana-
pac-
karman
kartṛ

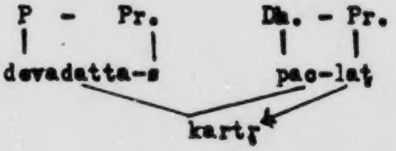
(51a)


P1 - Pr.
P2 - Pr.
Dh. - Pr.
devadatta-s
odana-am
pac-laṭ
karman
kartṛ

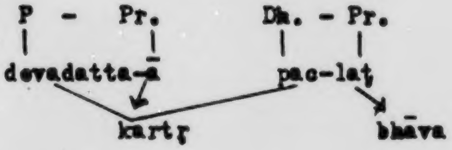
(51b)


P1 - Pr.
P2 - Pr.
Dh. - Pr.
devadatta-ā
odana-s
pac-laṭ
karman
kartṛ

(52a)


P - Pr.
Dh. - Pr.
devadatta-s
pac-laṭ
kartṛ

(52b)

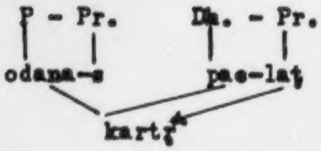

P - Pr.
Dh. - Pr.
devadatta-ā
pac-laṭ
kartṛ
bhāva

laṭ is now subject to the replacements which apply in deriving passive sentences such as (2) from (51b) and other affixations proper to passive sentences apply. Thus, *laṭ* in (53a) is replaced by *ta* (*te*), which is preceded by *ya* (*pac*-*ya*-*te*).

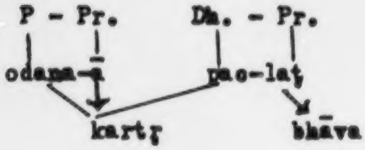
Sentences such as discussed in § 5 are also derived in this manner. The initial strings for (38) and (39) are (54a), (54b). With respect to these, two special rules are to be noted. One makes use of coreference: if *laṭ* --- which, recall, is introduced to signify a kartṛ or a karman --- is coreferential with an item which terminates in an ending other than a nominative,[12] it is replaced by a participial affix instead of finite ending such as *ti*; and, if a given verb in a derivation denotes an action which here characterizes another or is the reason (cause) for the performance of this, this participial replacement also applies. The *laṭ* of gam-*laṭ* in (54a) and (54b) is thus replaced by a participial affix. Sentences (44) and (45) are derived in precisely the same manner, differing only in that they contain different lexical items. On the other hand, the initial strings for (46) and (47) are (55a), (55b). Here, the affix *laṭ*, introduced to signify a karman, is replaced by the participial affix *āna* (whence *māna*).

The same derivational system applies in the case of (40)-(42), the initial string of which are (56)-(58). Here too *laṭ* of gam-*laṭ* is replaced by a participial affix, *at*. Since, moreover, *gacchat* is coreferential with *devadatta*-*e*, *devadatta*-*as*, *ratha*-*i*, the affixation proper to denoting a sampradāna, an apādāna, and an adhikaraṇa is repeated: *gacchat*-*e*, *gacchat*-*as*, *gacchat*-*i*.

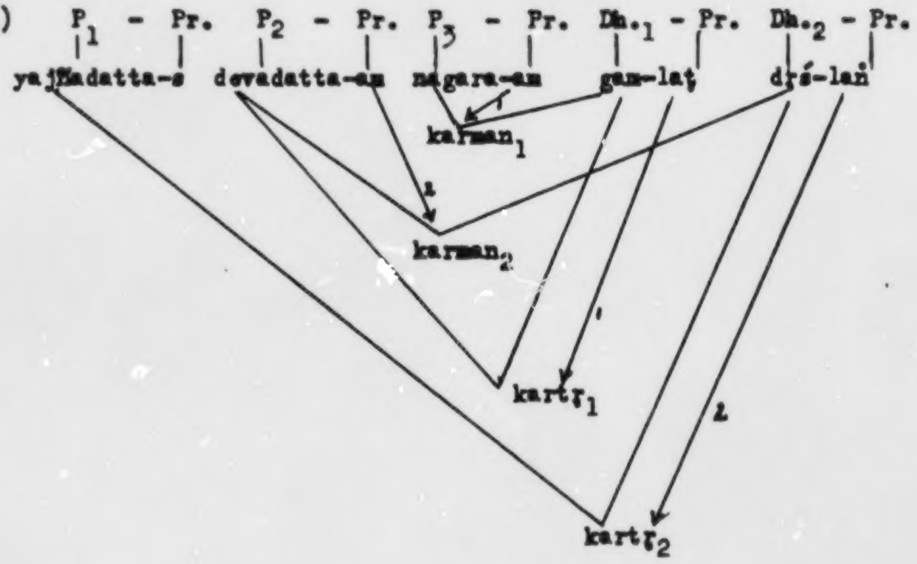
(53a)


P - Pr.
Dh. - Pr.
odana-s
pac-laṭ
kartṛ

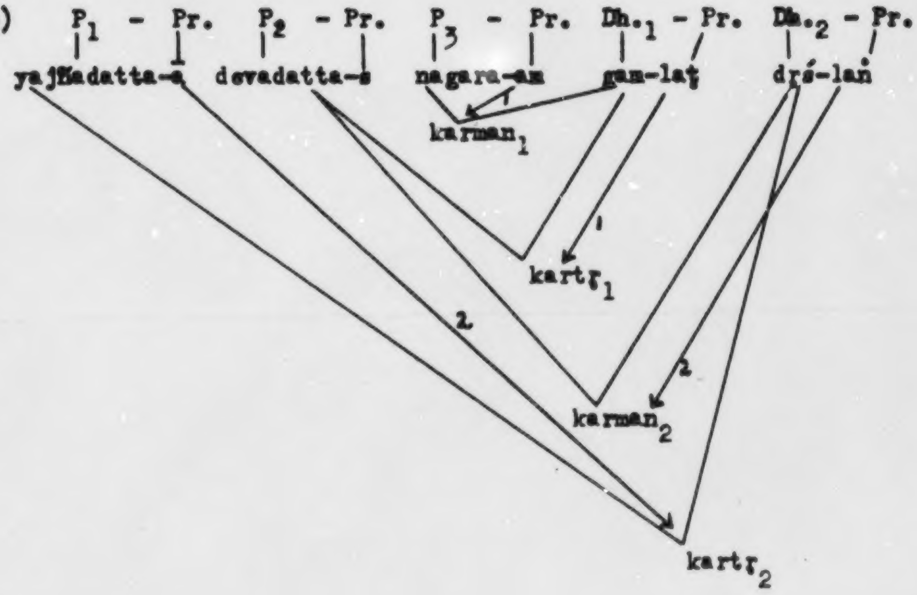
(53b)


P - Pr.
Dh. - Pr.
odana-ā
pac-laṭ
kartṛ
bhāva

(54a)


P1 - Pr. P2 - Pr. P3 - Pr. Dh.1 - Pr. Dh.2 - Pr.
yajñadatta-s devadatta-am nagara-am gam-laṭ dṛś-laṅ
karman1
karman2
kartṛ1
kartṛ2
1
2
1
2

(54b)


P1 - Pr. P2 - Pr. P3 - Pr. Dh.1 - Pr. Dh.2 - Pr.
yajñadatta-s devadatta-s nagara-am gam-laṭ dṛś-laṅ
karman1
kartṛ1
karman2
kartṛ2
1
1
2
2

§7. In §6, I brought in the terms *kartṛ*, *karman*, *sampradāna*, *apādāna*, *adhikaraṇa*, without glossing them. In Pāṇini's system, these terms denote, as I have mentioned, members of relational categories, and these are defined in the grammar. Semantic relations which hold between participants in actions --- these referred to by the term *kāraka* --- and these actions are taken into consideration in derivations. Such participants are assigned to specific categories under stated conditions. Some of these categorization rules simply state semantic relations associated with the syntactic categories:

[1] 1.4.24 (dhruvam apāye'pādānam): that participant which is a point of departure is apādāna (see (41), (57)).

[2] 1.4.32 (karmaṇā yam abhipraiti sa sampradānam): that participant for whom one intends something classed as karman (see [5]) is apādāna (see (40), (56)).

[3] 1.4. 42 (sādhakatamaṃ karaṇam): that participant which, more than any other with respect to the action in question, functions as means is karaṇa; for example, the axe (*paraśu*) used to cut a tree is karaṇa relative to cutting (*chid*):

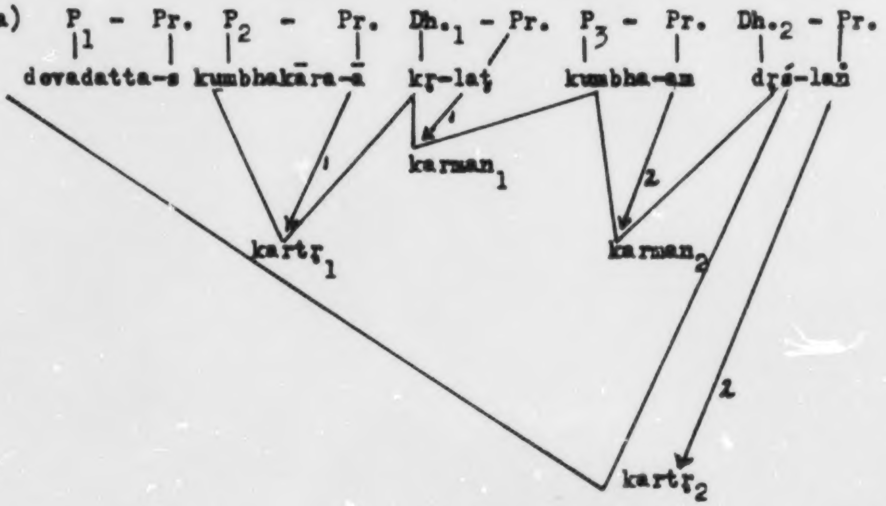
(59) paraśunā vṛkṣaṃ chinatti

[4] 1.4.45 (ādhāro'dhikaraṇam): that participant which functions as substrate is adhikaraṇa (see (42), (58)).

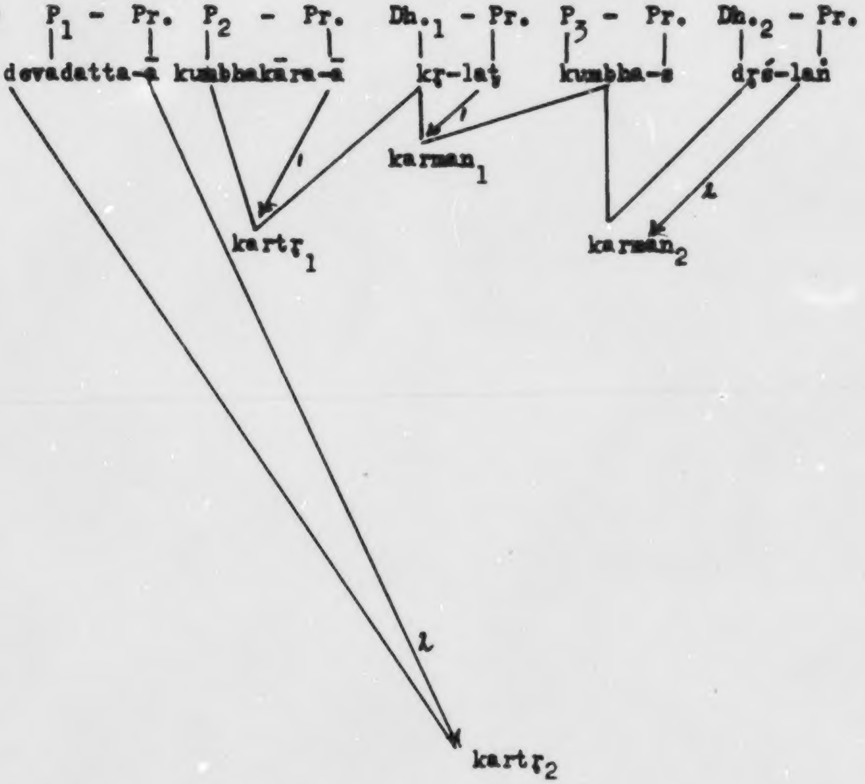
[5] 1.4.49 (kartur īpsitatamaṃ karma): that participant which a kartṛ (see [6]) most wishes to attain is karman (see (1)-(2), (51a,b)).

[6] 1.4.54 (svatantraḥ kartā): that participant which functions independently relative to other participants in the sameaction is kartṛ (see sentences referred to under [5]).

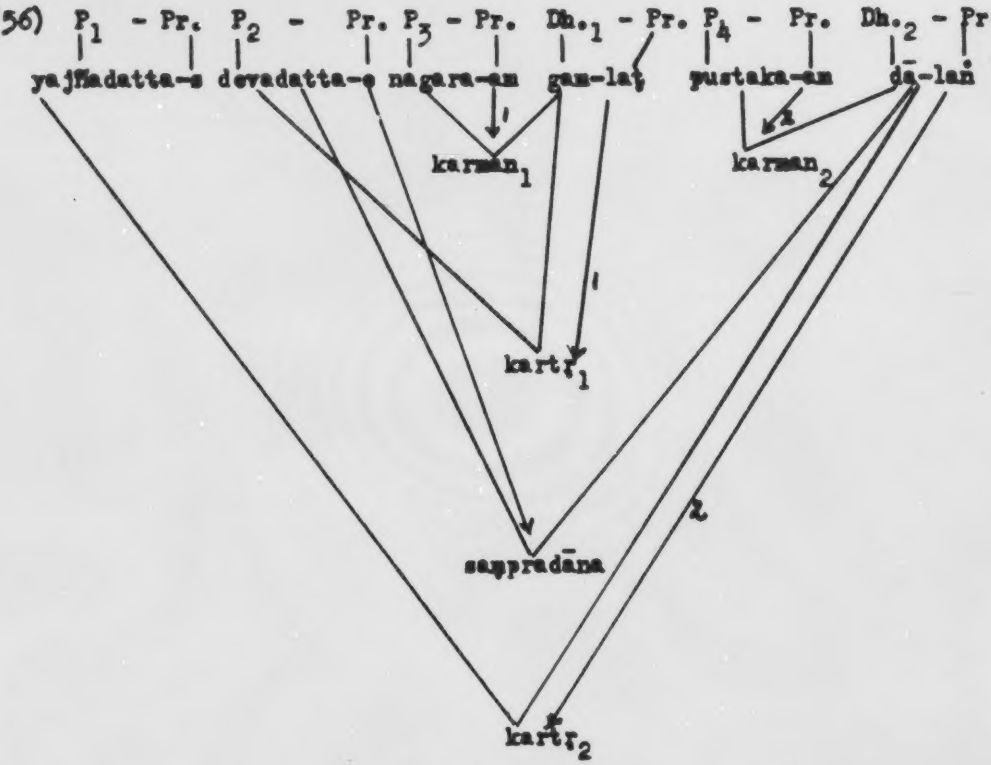
(55a)


P1 - Pr. P2 - Pr. Dh.1 - Pr. P3 - Pr. Dh.2 - Pr.
devadatta-s kumbhakāra-ā kṛ-laṭ kumbha-am dṛś-laṅ
karman1
kartṛ1
karman2
kartṛ2
1
1
1
2
2

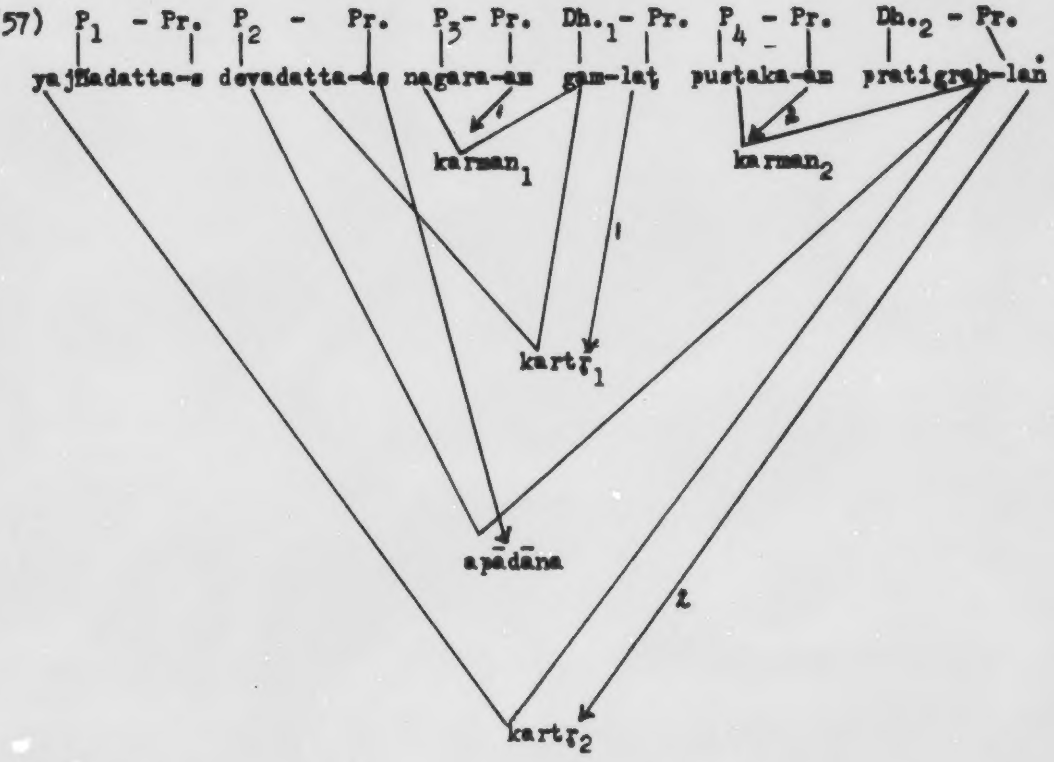
(55b)


P1 - Pr. P2 - Pr. Dh.1 - Pr. P3 - Pr. Dh.2 - Pr.
devadatta-ā kumbhakāra-ā kṛ-laṭ kumbha-s dṛś-laṅ
karman1
kartṛ1
karman2
kartṛ2
1
1
2
2

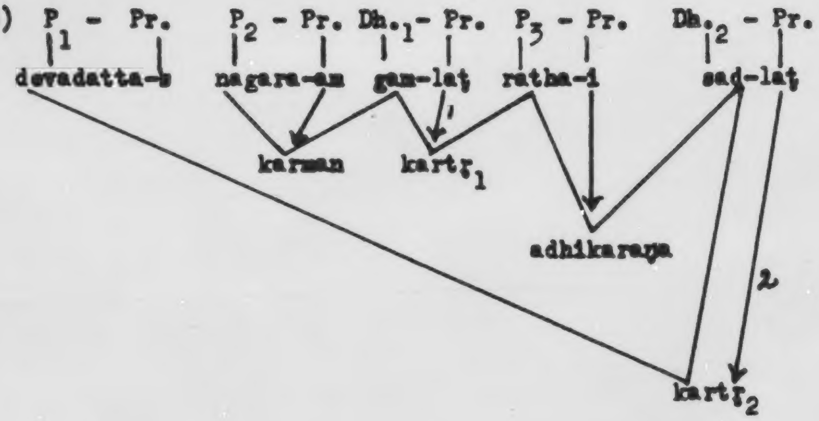
(56)


P1 - Pr. P2 - Pr. P3 - Pr. Dh.1 - Pr. P4 - Pr. Dh.2 - Pr.
yajñadatta-s devadatta-e nagara-am gam-laṭ pustaka-am dā-laṅ
1
karman1
2
karman2
1
kartṛ1
2
sampradāna
kartṛ2

(57)


P1 - Pr. P2 - Pr. P3 - Pr. Dh.1 - Pr. P4 - Pr. Dh.2 - Pr.
yajñadatta-s devadatta-as nagara-am gam-laṭ pustaka-am pratigrah-laṅ
1
karman1
2
karman2
1
kartṛ1
apādāna
2
kartṛ2

(58)


P1 - Pr.
P2 - Pr.
Dh.1 - Pr.
P3 - Pr.
Dh.2 - Pr.
devadatta-s
nagara-am
gam-laṭ
ratha-i
sad-laṭ
1
karman
kartṛ1
adhikaraṇa
2
kartṛ2

Other such categorization rules include what are syntactic cooccurrence conditions. They provide that a given participant, whatever its semantic relation to an action, is assigned to a particular category if a given verb or set of verbs is used --- recall that lexical items are specified at the very beginning of a derivation. Examples of such rules are:

[7] 1.4.26 (parājer asoḍhaḥ [apādānam 24]): with respect to the action denoted by *parāji*, when this is used, that which one cannot bear is apādāna; for example,

(60) adhyayanāt parājayate 'He is overcome by his study.'

[8] 1.4.33 (rucy-arthānāṃ prīyamāṇaḥ [sampradānam 32]): with respect to actions denoted by verbs meaning 'please', he who is pleased is sampradāna; for example,

(61) devadattāya rocate kanyā 'Devadatta likes the girl.'

[9] 1.4.43 (divaḥ karma ca [sādhakatamam 42]): that participant which functions as means (*sādhakatama*) with respect to gambling as denoted by *div* is both karaṇa (cf. [3]) and karman; for example,

(62) akṣair dīvyati 'He is gambling with dice (shooting craps).'

for the derivation of which the dice are classed as karaṇa, so that the instrumental ending is introduced after *akṣa*, as opposed to

(63) akṣān dīvyati 'id.'

for the derivation of which the dice are classed as karman, so that *akṣa* is followed by the accusative affix.

[10] 1.4.46 (adhi-siṅ-sthâsāṃ karma [ādhāraḥ 45]): that participant which functions as substrate (*ādhāra*) with respect to lying, being in place and sitting as denoted by *adhi-śī*,, *adhi-ṣṭhā*, *adhy-ās* is karman;

for example,

(64) bhūmim adhyāste devadattaḥ 'Devadatta is seated on the ground.'

for deriving which the ground is classed as karman, so that bhūmi is followed by an accusative accusative affixe, as opposed to

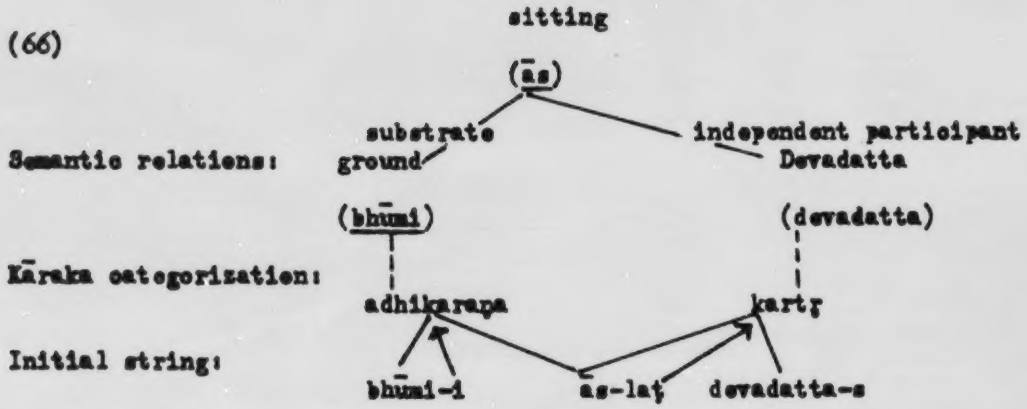
(65) bhūmāv āste

for the derivation of which the ground is classed as adhikaraṇa ([4]), so that bhūmi is followed by a locative ending.

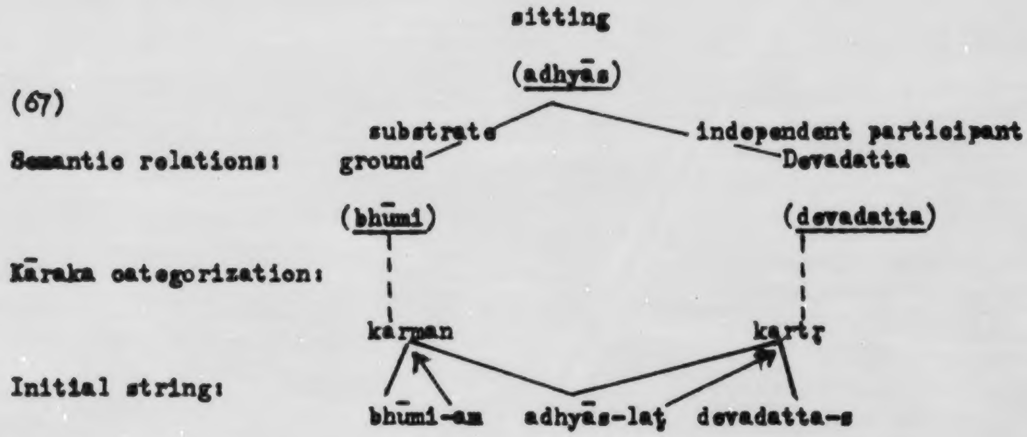
Once such categorization has applied, affixation rules serve to introduce particular affixes on condition that a given kartṛ, karman etc. --- that is, a participant in an action as assigned to a category --- is to be designated. This classification scheme thus serves as an intermediary between semantic relations and sentences derived. For example, the derivation of (64), (65), taking into account semantic relation, would begin with (66), (67).[13]

§ 8. Sentences such as (23)-(26), (64)-(65) (cf. (53a, b), (66)-(67)) serve nicely to contrast Pāṇini's system with another system wherein the notion 'subject' plays a role, namely what has been called case grammar. In this, as is well known, 'subject of sentence' is a surface relation which, in English, accounts essentially for the position of particular noun phrases. In Sanskrit, this would presumably be linked with the nominative form. Presumably, one would proceed as follows. There are "deep" relational categories of participants as they bear different relations to actions: Agent, Object, Locus etc. These are characterized strictly in terms of semantic features, since they are indeed purely semantic notions. There are also surface relational categories such as subject, object. These can be left without strict

(66)


sitting
(ās)
Semantic relations:
substrate
ground
independent participant
Devadatta
(bhūmi)
(devadatta)
Kāraka categorization:
adhikaraṇa
kartṛ
Initial string:
bhūmi-i
ās-laṭ
devadatta-s

(67)


sitting
(adhyās)
Semantic relations:
substrate
ground
independent participant
Devadatta
(bhūmi)
(devadatta)
Kāraka categorization:
karman
kartṛ
Initial string:
bhūmi-am
adhyās-laṭ
devadatta-s

definition, since there only purpose is to allow mapping "deep" relations into them to account for variations proper to particular languages with respect to case endings, prepositions, postpositions, and word order.

Within such a scheme it is fairly straightforward to let a "deep" Locus be mapped into surface object to account for (64) and relate this to (65). Moreover the distinction between transitive and intransitive verbs can be considered a surface phenomenon. Hence, though there is only a "deep" Locus, not Object, for (64), there is a surface object, so that adhyās is transitive and (64) has a passive counterpart

(68) bhūmir adhyāsyate devadattena

In Pāṇini's system too the verb adhyās is transitive (sakarmaka), this because, by [10], the semantic substrate (locus) of sitting is classed as karman if the verb adhyās is used. It would appear, then, that Pāṇini's karman corresponds not to Object of case grammar but to a surface category. However, this too is not strictly true. If a surface category is viewed as essentially linked to some particular syntactic-morphologic feature such as a position or a special case form (accusative etc.), then Pāṇini's karman and other categories are not strictly surface categories. This is as we should expect it to be. Pāṇini's categories karmanetc. are truly intermediaries between semantic relations and syntactic strings derived by rules of the grammar. These categories are not defined in purely semantic terms, as a glance at even the small number of rules I have given suffices to show; indeed, there is no single set of homogeneous semantic features which can be said, in Pāṇini's system, to define a category such as karman or apādāna. The terms *kartṛ*, *karman* etc., though they are traditionally translated 'agent', 'object' etc., are by no means mere labels used to refer to sets of semantic features alone.

§ 9. It is not surprising, in view of what I have noted, that the rice of (23)-(26), the grain pot of (27)-(30) and the car (chariot) of (42) (see (58)) are classed as kartṛ ('agent') in Pāṇini's derivational system. The river (*nadī*), fire (*agni*) and chariot (*ratha*) of the following sentences are also classed as kartṛ relative to flowing (*vah*), burning (*dah*) and going (*gam*):

(69) nadī vahati

(70) agnir dahati

(71) ratho grāmaṃ gacchati 'The car is going to the village.'

(72) rathena grāmo gamyate 'id.' (passive)

It is of interest to consider such sentences and sentences like (1) and (2) with respect to what Pāṇinian grammarians and Indian philosophers of the Nyāya school have to say about them. For in some interesting ways it is these philosophers and not the Pāṇinian grammarians whose positions are most easily reconciled with views of some modern grammarians. A Naiyāyika could give (3)-(4) as paraphrases of (1)-(2), as I have noted (§2).. More precisely, however, he would say that what is conveyed by (1) is shown by the paraphrase

(73) devadatta odana-vṛtti-viklitti-janaka-pākā̂nukūla-kṛtimān 'Devadatta is characterized as being the locus of a conscious effort (*kṛti*) which leads to cooking, that itself produces softening, the locus of which is rice.'

Sentence (71), on the other hand, conveys a meaning which is shown by the paraphrase

(74) ratho grāma-gamana-vyāpārāśrayaḥ 'The chariot is the locus (*āśraya*) of movement (*gamana*) to the village.'

That is, there is a difference between (1) and (71). The first refers to a person Devadatta, a sentient being (*cetana*) capable of a conscious effort; such an entity can be characterized by true agency, volition. On the other hand, (71) refers to an insentient (*acetana*) being, incapable of such a conscious effort, hence one which cannot be a true agent, though it is indeed characterized as being the locus of a movement. The Pāṇinian grammarian, on the contrary, gives both these sentences the same analysis; what they convey is shown by the paraphrases

(75) devadatta-kartṛkaudana-karmaka-pāko vartate 'There occurs at present cooking with respect to which Devadatta is agent (kartṛ) and rice object (*karman*).'

(76) ratha-kartṛka-grāma-karmaka-gamana-vyāpāro vartate 'There occurs at present going with respect to which a chariot is agent and village object.'

Of course (1) and (71) do differ semantically: they refer to different actions with distinct participants. However, the relations involved are the same, and this is not changed by what the particular lexical items used denote.

The Pāṇinian grammarian and the Naiyāyika differ also concerning sentences such as the following:

(77) devadatto jalena puṣpāṇi siñcati 'Devadatta is pouring water on the flowers.'

(78) devadatto'gninā puṣpāṇi siñcati 'Devadatta is pouring fire ...'

grammarian and the Naiyāyika. The latter accepts verbal transmission (*śabda*) as one means of conveying knowledges. By definition, however, a verbal testimony is an utterance of a trustworthy person (*āpta-vākya*), and such a trustworthy person is one who conveys things as they truly are (*yathârtha-vaktṛ*). That is, the truth of an utterance --- and this in the context of a real world and accepted ontology --- is important.[14] The Pāṇinian grammarian, on the other hand, does not use possible truth or falsehood as a judgement criterion for the correctness of sentences qua entities derived by rules of the Aṣṭādhyāyī. As long as a sentence is syntactically and morphologically correct, it is proper. A sentence such as (78) is as correct grammatically as is (77), hence one allows for deriving it. That what such a sentence purports to convey happens to be impossible in the world as we know is a factor of this world, not of the grammar.

§ 10. The same is of course to be said of sentences (1) and (71). That Devadatta is a sentient being capable of volition and a chariot is not is of course obvious, but this does not require per se that the grammar give sentences (1) and (71) different analyses and derivations. Consider now the sentences

(80) devadatta odanaṃ pācayati 'Devadatta is having rice cooked (for someone else).'

(81) devadatta odanaṃ pācayate 'Devadatta is having rice cooked (for himself).'

(82) devadatta āste 'Devadatta is seated.'

(83) yajñadatto devadattam āsayati 'Yajñadatta seats Devadatta.'

(83a) *yanjñadatto devadattam āsayate

(84) vrīhayaḥ śuṣyanti 'The rice is drying.'

(85) devadatto vrīhīn śoṣayati 'Devadatta is drying the rice.'

(86) devadatto vrīhīn śoṣayate

In Sanskrit, the use of active endings such as ti and mediopassive endings such as te is correlated, in definable cases, with a semantic distinction: if the active forms are used, one conveys that the agent performing an action is doing it for someone else; if the mediopassive forms are used, one conveys that the result of the action is intended for the agent performing it. Thus, (80) conveys that Devadatta is having rice cooked for someone other than himself, while (81) conveys that he is doing this for himself. In particular instances, however, the mediopassive forms of causative verbs are not used under these conditions. If the primitive verb from which the causative derives is intransitive and the agent (kartṛ) who performs it is a sentient being (cittavat), then the causative is followed only by active endings. (83) is thus a correct causative related to (82), but (83a) is not. And (85), (86) are correct causative sentences --- with the semantic distinction noted --- related to (84). To account for such usages, Pāṇini does indeed formulate a special rule (1.3.88: aṇāv akarmakāc cittavat-kartṛkāt) which allows only active endings to be used in sentences like (83), under the conditions I have noted, even if the result of the action is indeed intended for the agent performing it.

Again, consider the sentences

(87) gṛhe bhuṅkte devadattaḥ 'Devadatta eats at home.'

(88) ahani bhuṅkte devadattaḥ 'Devadatta eats during the day.'

(89) dvir ahno bhuṅkte devadattaḥ 'Devadatta eats twice a day.'

(90) dvir ahani bhuṅkte devadattaḥ 'id.'

In (87)-(88), (90), as in (42), locative forms (*gṛhe*, *ahani*, *rathe*) are used to refer to loci, whether they are things such as a house or a car or time. Under particular conditins, however, a genitive form can be used, as in (89): if one uses adverbs of the type *dvis* 'twice' --- used with reference to repetition of an action --- and the locus in question is a time. But one cannot also say **dvir* *gṛhasya* *bhuṅkte* '...eats twice at home': the locus must be a time. Here again, Pāṇini formulates a special rule (2.3.64: kṛtvo'rtha-prayoge kāle'dhikaraṇe) taking these conditions into consideration to allow the use of the genitive as in (89).

Now, it is apparent that quite particular semantic subdivisions are taken into consideration in the above instances. It is also obvious that, had he wished to, Pāṇini could have extended such distinctions as are made in these instances to other cases. He could, for example, have made a consistent distinction between true agents --- sentient beings capable of volition --- and others. He does not do this despite the fact that such distinctions could be justified in terms of what questions certain sentences can answer to, in terms of the truth value of sentences, or in terms of logical relations among sentences. That Pāṇini does not do this is understandable in the context of what the Aṣṭādhyāyī is intended to do. Essentially, this is a grammar for single sentences and their component syntactic items in isolation. In this respect, it is quite a modest grammar.[15] Particular semantic subdivisions such as noted above are indeed brought into play, but only so far as these are associated with particular syntactic rules for deriving individual sentences, in other words, essentially affixation rules and rules of morphophonemics.

§ 11. Given the above, one has now to ask just what is meant by svatantra('independent') in [6]. It is clear that by this cannot be meant a participant in an action which puts into play other participants while itself not be put into play by any other. For, were this what was intended, Devadatta of (1)-(2) would qualify for being kartṛ but not the rice of (23)-(26), the grain pot of (27)-(30), or the car of (71)-(72). And in Pāṇini's system these are all indeed classed as kartṛ. One must, then, conclude, in accord with Pāṇinian commentators, that svatantra of [6] refers simply to any participant which is spoken of as functioning independently with respect to a given action, regardless of its other properties.

But this brings us back full circle to considering again the notion 'subject'. For what this amounts to is nothing more or less than the following. We are given sentences of the types

(91) N_1-s N_2-am V-ti/te (see, e.g., (1), (80)-(81))

(92) N_1-ā N_2-s V-ya-te (e.g., (2))

(93) N_1-s V-ti/te (e.g., (8), (13))

(94) N_1-ā V-ya-te (e.g., (9), (14))

(95) N_1-ā V-ta-am (e.g., (12), (16))

such that (91)-(92), (93)-(94) are alternants and (95) differs from the second pair only in respect of time reference. Whatever is denoted by N_1 in such sentences is considered spoken of as functioning independently with respect to the action denoted by V, and is classed as agent. Further subdivisions of this category are taken into account in particular instances only in so far as these are directly associated with special syntactic features of individual sentences. In other words, the category kartṛ is not defined in terms of any purely semantic or pragmatic features independent of syntax but in terms of a very general characterization which itself is not really viewed independently from the syntax of Sanskrit.

The category kartṛ thus comes fairly close to being comparable to the formal subject of sentence in a system which recognizes a separate syntactic level. For in Pāṇini's system, kartṛ --- and the other categories noted in §6 --- belongs to a mechanism which mediates between semantic relations and derived strings, a syntactic mechanism of classification. Only Pāṇini's categories are not defined directly in terms of a derivational scheme, they are immediately associated with semantic relations, and, finally, they do not constitute, strictly speaking, a totally self contained level --- reference is made not only to particular verbs but also to a particular affix in the classification rules.

§ 12. Sanskrit does not lend itself easily to being described in terms of a grammatical subject of a sentence defined formally in terms of a derivational scheme ("tree") and associated with the semantic subject of predication (see §§ 2-5). It does lend itself nicely to description in terms of relations which hold between verbs and nouns, associated with semantic relations between actions and participants in them (see§§6-7). This is indeed Pāṇini's system, which differs from modern case grammar in that the scheme of categories recognized constitutes a mechanism mediating between semantic relations and derived sentences, the categories themselves not being defined in purely semantic terms (see §8). That Pāṇini proceeds in this manner is understandable, since his grammar is intended essentially to account for individual sentences -- some, to be sure, complex --- and their components, without reference to their truth value or other such more powerful semantic considerations (see §§9-11).

Footnotes

[1] The points discussed in this paper are more fully treated, with complete documentation, in chapters I and IV of my forthcoming book *Pāṇini, volume II: an introduction to the grammar*. I have also dealt with many of these points elsewhere, from different points of view and with different emphases. For a full bibliography on what has been said concerning Pāṇini's syntactic rules and semantics associated with these see sections III.1.5.5c-5d of my *Pāṇini, volume I: a survey of research* (*Series Critica*, The Hague: Mouton, in press).

[2] I think this is justified despite the fact that Sanskrit word order is far freer than that of, say, English; it has what has traditionally been called a free word order.

[3] This would accord with the view of philosophers of the Nyāya school, according to whom the principal qualificand in the sentential meaning of a sentence such as (1) is what is denoted by a nominative form; see below and §9. Note that a term one of whose values is 'subject of predication' was used by Sanskrit writers: *uddeśya*, which, in general, refers to something given and with respect to which something is said.

[4] Nor is it so restricted in modern Indo-Aryan. For example, a Gujarati sentence such as *mara thi jəwatuN nəthi* 'I cannot go' contains the formal passive (*jəwa*-) of *jəwuN* 'go' and is comparable, mutatis mutandis, to a Sanskrit *mayā na gamyate*. Note, however, that it is improper to speak of a true passive comparable to the one of Sanskrit for a modern Indo-Aryan language such as Gujarati. For here the passive formation is, except in some styles such as newspaper writing,

associated with two features. The type exemplified above, with expressed agential (*marə thi*) has a particular semantics: the capacity of X to perform an action. Moreover, this type appears to require a human or volitional agent; a sentence such as a *ghəḍiaḷ thi bərabər wəkhət əpay chE*, which would mean 'this watch can tell precise time', is not readily accepted by speakers. The second passive formation requires, unless it has the semantics of capacity noted above, deletion of an agential. Thus, for example, *cOpḍi wəNcai gəi* 'the book got read' is acceptable, but *Ehna thi cOpḍi wəNcai gəi* would have to mean something like 'he happened to read the book', not 'the book was read by him'. Passive sentences without expressed specific agent are, of course, common in Sanskrit (see J. Gonda, *Remarks on the Sanskrit Passive*, Leiden: Brill, 1951), but Sanskrit also allows sentences of the type (2) with the meaning shown. Note also that, though modern Indo-Aryan has constructions which correspond in part to (23) --- Gujarati *bhat randhay chE* 'the rice is cooking' --- it does not have pseudo-passives of type (24). Some of these questions merit more extensive investigation. For the moment let me only thank Panna Naik for bearing with me while I questioned her about the acceptability of certain Gujarati sentences.

[5] The phrase *avayam eva* 'of itself', included in parentheses, is not a necessary part of the sentence. It is used only to show that (23) has the meaning shown and is not an elliptic sentence (see below).

[6] Another possibility would be to passivize (34) first, then let either of the nouns be deleted optionally. However, this goes counter to structures such as (36), (37).

[7] In English, the use of 'it' might allow one to posit, at some point in a derivation, a so-called dummy subject, but not in Sanskrit.

[8] The constructions exemplified, with inflected participles, are as old as Sanskrit itself, indeed probably an Indo-European inheritance, since these kinds of sentences are found not only in earliest Vedic but also in other Indo-European languages such as Greek.

[9] A slight complication is offered by the type *devadattena nagaram gacchatā bhuktam* 'Devadatta ate on his way to town', since one might consider it best to invoke deletion of a coreferential noun here. However, in Pāṇini's system, this too contains but one noun related to two verbs. The analytic counterpart of the above sentence, *yadā nagaram agacchat tadā devadattena bhuktam*, also normally contains only one instance of the nominal. If need be, Pāṇini simply lets this be reiterated. Note that, with respect to constructions such as those considered in this section, modern Indo-Aryan is somewhat less complex. Gujarati could have a sentence *rᵊmeše mᵊgᵊnne šᵊhEr jᵊto joyo* 'Ramesh saw Magan while he (Magan) was going to town', though the more generally used formation is analytic: *mᵊgᵊn šᵊhEr jᵊto hᵊto tyare rᵊmeše Ehne joyo*. Sentences comparable to (40), on the other hand, must be of the second kind.

[10] Symbols: 'P': nominal base (Skt. *prātipadika*), 'Pr.': affix (*pratyaya*), 'Dh.': verb root (*dhātu*). Note that a Pāṇinian initial string actually lacks these symbols and also 'karman' etc., which I have included here only for exemplification.

[10a] Note carefully that I say this only in the context of passivization as a transformation one effect of which is to convert a grammatical

object into a grammatical subject. One could very well say that sitting is the uddeśya (see note 3) in (9), but this does not mean that an item ās̲anam ('sitting') is the subject of this sentence within the system where a subject of a passive sentence is correlated with an object of an active sentence. If one took this view here, the verb ās would, undesiredly, be transitive (sakarmaka). Note also that Pāṇini's system (see §6) accounts for the fact that in embedding it is always the grammatical subject of the embedded sentence which is subject to operations related to nominalization. But Pāṇini's derivation system accounts for this only incidentally, and this is not made the basis for dealing with such sentences in terms of grammatical subjects or of true embedding.

[11] I leave the terms kartṛ, karman etc. untranslated here since giving glosses now ('agent', 'object') might lead the reader to unwarranted conclusions; see §7.

[12] Coreference (sāmānādhikaraṇya) is also used by Pāṇini to account for agreement phenomena, so that in this system 'subject of sentence' is not needed for these.

[13] I omit other semantic features taken into account in a derivation: number, time references, and modalities. In (66), (67) the broken lines connect participants and the categories to which they are assigned.

[14] It is useful to emphasize that the Naiyāyika is an arch realist who accepts a particular ontology. The grammarian of the Pāṇinian school, on the other hand, denies any reality except the Concepts communicated through language, and even here the reality is things as they are spoken of.

[15] This is not to say that interesting questions of semantic import in connection with sentences and larger contexts were totally ignored. Such questions were indeed considered by later Pāṇinīyas. I am here only referring to the grammar itself, the corpus of rules and its ancillaries.

Is Sinhala A Subject Language?
(or, How Restricted Is Your PNP?)

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It is obvious that the term "subject" has been pervasive and fundamental in linguistics, and that the subject has been one of those putative linguistic entities accorded a universal status, either explicitly or implicitly, in much of the literature on syntax. To take but a few examples: for Sapir, noun and verb were universals, as were by implication subject and predicate (Sapir 1921, p. 119), though it is by no means certain that Sapir's "subject of discourse" can be equated with grammatical subject in the narrower sense.[1] Greenberg (1966) expressed a number of syntactic universals in terms of S(ubject), O(bject) and V(erb), thus presuming an identifiable subject and its universality or near-universality. The subject was enshrined in classical transformational grammar in the omnipresent S--> NP + VP and its subsequent variations, taken together with the configurational definition of subject as that NP directly dominated by S (Chomsky 1965, pp. 70-71). In Fillmorian case grammar, the subject was relegated to a surface status, but an important one nevertheless as one of the primary motivations for the case hierarchy (Fillmore, 1968 and subsequent papers).

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[1] I am indebted to my colleagues Leonard Babby, John Bowers, Kamal De Abrew, Joseph Grimes and Ian Smith for enlightening discussions on topics closely related to this paper, though none of them have seen the final version and might well disagree. Thanks are due to Stephanie Doucette for typing the preliminary and final versions of this paper.

Examples could be multiplied with ease, but despite its pervasiveness in linguistic theory and description the notion of subject remains an ill-defined or at best vague one. A recent attempt by Keenan (1974a and 1974b) to provide a universal definition of "subject of" together with a cumulative list of properties possessed by subject NP's demonstrated clearly that not only is there no subset of properties both necessary and sufficient to define an NP as subject, but that there was not even one necessary single property. This conclusion seems more than justified from an examination of any relatively sizable sample of those entities that have been called subjects in the literature.

Setting aside semantic properties, those characteristics that define subject within grammar proper are of two general kinds: surface and covert. Surface characteristics are those such as position, verbal agreement and (surface) case. One might also add, without unduly straining the notion "surface", the paradigmatic substitution relations in construction with predicates of varying form familiar in structural linguistics; or, more simply, the "first cut" which was converted into the NP + VP of transformational grammar. "Surface Characteristic" as used here appears closely to approximate Keenan's notion of "Coding Property".

Covert characteristics are those which do not appear on the surface, but relate to the necessary specification of the category in the rules of the grammar, whether as participating elements, environments, or constraints. In English, for example, the subject figures in a number of rules, such as passivization, equi-deletion, reflexivization, raising, etc. "Covert Characteristic" appears to coincide, or nearly so, with

Keenan's "Behavior Property".

Now, the importance of the subject in any given language may be said to vary in a rough way with the number of subject-like characteristics that converge on some definable syntactic element. Thus in English, subject is marked by a number of surface characteristics and specified in a number of transformations, whatever specific model one may employ. Put simply, one cannot wander around far in the grammar of English without banging his knees on a subject. The same is not a feature of all languages, however, and recently there have been challenges to the hegemony of the subject relation. Lee, (1971) building upon Partee and Fillmore, presented a case for restricting deep subject to agent, so that agentless sentences lacked deep subjects. This left the importance of superficial subject relatively intact, though giving it a secondary status where it was non-agent. Other attempts, however, have questioned the relevance, or at least the importance, of the subject on both levels for some languages, thus challenging its universal importance and centrality in syntax. Li and Thompson (1974) have suggested a typology of language based on a continuum between subject-prominent and topic-prominent languages and Hale and Watters (1973) have proposed a fundamental distinction between subject-object and actor-undergoer languages. While these proposals agree in claiming that there are languages in which some relation other than the subject one may be more basic, they differ in what they conceive that relationship to be. This difference seems to be at least in part a function of what languages one begins from and emphasises. While Li and Thompson make a convincing case for topic-comment languages, it is not so clear that this is a structural type that can be opposed directly to subject-predicate as a polar opposite, or at least not exclusively so. The problem with subject-topic as a single continuum is that topic and subject may operate in different spheres in the grammar and as at least partially independent entities. As Li and Thompson point out in their list of six criteria to distinguish subject from topic, subjects are involved in selectional restrictions with the verb, while topics are not necessarily so. Also, verbs often determine what their subjects will be, in that it is possible to predict what arguments may appear as subjects for a given verb, whereas topics are characteristically not thus predictable.

Without denying that there are topic-comment languages one can argue that there are languages in which there are basic organizing principles other than subject for nominals that are in selectional relationships with the verb and which are determined by it (and in fact stand in strict subcategorizational relationship with it). We should note that Li and Thompson recognize this possibility specifically in relation to Tagalog, which they say in neither subject nor topic-prominent (p. 35). I shall claim subsequently that Sinhala is another language that does not fall neatly along that continuum.

Hale and Watters are concerned specifically with those elements that strictly subcategorize verbs. Briefly put, their distinction between actor-undergoer and subject-object languages hinges on the directness of the pairing between surface grammatical positions (their "focus relations") and underlying roles much like Fillmorian deep cases (their "roles" or "sememic functions").

On the other hand, there are languages whose surface markers are primarily grammatical. Such languages might be referred to as "subject-object" languages. On the other hand, there are languages whose surface markers are primarily sememic. Such languages might be referred to as 'actor-undergoer' languages (p. 183).

Thus, in contrast to a language like English, in which a number of underlying roles maybe mapped into a single definable subject position, in a language like Newari only underlying actors occur in subject-like positions with other roles differently mapped, and a number of sentence types do not include actors (and hence are subjectless). In such languages, the pairing of role and surface position is relatively direct, and subject becomes redundant since it adds nothing to the specification of actor. I might add to this that there also seems little reason to attribute to subject or actor any greater _a priori_ importance than to other functions such as experiencer, recipient, etc.

The purpose of this paper is to examine Sinhala (Sinhalese) very briefly in the light of proposals such as those above. For this, Hale and Watters' proposal appears more directly relevant, since Sinhala appears clearly not to be a topic-comment language in the sense of Li and Thompson. It will be only a beginning, intended to pull together some of the relevant data, since much of the groundwork necessary for a more complete study remains to be done, particularly in relation to covert characteristics. It will be limited to Colloquial Sinhala, for a similar approach to the Literary (written) variety might lead to quite different conclusions. For example, in Literary, verbs agree in person, number and gender with their subjects, but one noteworthy characteristic of Colloquial is the lack of such agreement. (For a brief characterization of Literary versus Colloquial see Gair 1968.) I will not work strictly within any particular model, but the general approach is generative and as a heuristic assumes a relationship between underlying role and surface position (as in case grammar). The major roles necessary for the data treated are *actor*, or volitive actor, much like Fillmore's agent, *patient*, roughly like Fillmore's object, and *experiencer*. To begin with, no stricter characterization seems necessary, but as we shall see, there is reason to assume that actor needs ultimately to be specified in a more complex way.

Sinhala has active sentences that clearly include an element with subject-like features, and in an earlier analysis I took the potential occurrence of a subject to be the crucial surface characteristic distinguishing active clause types from the impersonal ones, the other major division (1970, pp 56-57). The following will illustrate the range of sentence types involved. Note that derived transitive (or first causative in some approaches) and causative are both active types, and the thorny problem of their derivation is not relevant here: (*d* is dative, *a* is accusative, *C* is a causative morpheme; numbers in parentheses are sequential for subsequent reference).

I *Intransitive*

(1) *mamə naTənəwa*

'I dance'

(2) *balla buranəwa*

'dog bark' =

'The dog barks'

II Transitive

1. Basic Transitive

(3) *mamə minihawə daekka*

'I man-a saw' =

'I saw the man'

(4) *mamə goyan kapanəwa*

'I rice-plants cut' =

'I am reaping paddy'

2. Derived Transitive

(5) *lamea duəwə waTTənəwa*

'child daughter-a drop-C' =

'The child drops the daughter'

(6) *mamə ballawə burawənəwa*

'I dog-a bark-C' =

'I am making the dog bark'.

III Causative

(Intermediate agent is marked with *lawaa* or dative plus *kiəla*.)

(7) *mahattea maTə kiəla goyan kaeppua*

'master I-dat *kiəla* rice-plants cut-C-past' =

'The master had me cut paddy'

(8) mamə lamea lawaa pol kaDəwənəwa

'I child lawaa coconuts break' =

'I got the child to pluck coconuts.'

In all of the above examples, the first NP can be considered a subject on the basis of position, case, and agreement. Sinhala word order is flexible, but the unmarked order is clearly SOV. For inanimate nouns in Sinhala there is no nominative-accusative distinction but only a single direct case. Animate nominals, however, have an accusative affix -wə. This affix is optional so that for some speakers, at least, direct case can occur whenever -wə can, but not the reverse, and there is a difference between speakers in the frequency with which wə is employed. In the sentences above, the nouns in the first position will not allow wə, those in second position in the transitive sentences, if animate, will.

Colloquial Sinhala lacks subject-verb agreement in the usual sense, but there is one set of verbal inflections (aside from imperatives and hortatives) that show co-occurrence restrictions with person. The volitive optative (-nnan) signalling futurity (and commonly determination) occurs only with first person subjects (if we may use that term without prejudicing the discussion):

(9) mamə goyan kapannan

'I rice-plants cut-nnan' =

'I will reap paddy'

(10) _mamə innan_

'I be(animate)-nnan' =

'I'll stay'

(11) _api yannan_

'we go-nnan' =

'We'll be leaving'

On the other hand, the involitive optative (-_Vwi_ or -_y_), signalling futurity (and commonly uncertainty) cannot occur with first person subjects in active sentences (this does not preclude its occurrence with first person nominals in other types):

(12) _miniha yaawi_

'man go-wi' =

'He might go'

but not

*_mamə yaawi_

'I go-wi'

Thus there appear to be ample surface characteristics to establish a subject in Sinhala, but note that in the framework which we have adopted this becomes a mere terminological question unless a position so defined subsumes a number of underlying roles. In active sentences such as those above, allowing the appearance of the volitive optative -_nnan_, subject appears to equate with volitive actor (as the semantics of -_nnan_ indicate). If this equation always held; that is, if subject and actor were completely congruent, the notion of subject would be can be considered to combine both actor and experiencer as underlying roles, with the latter overriding the volitive aspects of the former.

(13) differs from (14) in that it has related active intransitive clause (1 above) mamə naTənəwa 'I dance'. The relationship is marked not only by surface case, but by the occurrence of a morpheme (P) on the verb in (13). This morpheme, sometimes misleadingly called "passive" is signalled by the thematic vowel -e- and stem-internal vowel fronting. It plays an important role in voice relationships and we shall see more of it later. The important point to note here is that (14) unlike (13) cannot be considered a derived type in any sense, so that there is no relationship between its involitive actor and a subject elsewhere.

There are also involitive two place sentences, such as:

(15) maTə (ibeemə) goyan kaepenawa
'I-d (automatically) rice-plants cut-P' =
'I just habitually cut paddy'

(16) maTə eekə kiəwenəwa
'I-d that say-P' =
'I say that involuntarily, I misspeak'

(17) maTə pansələ peen^{ə}wa
'I-d temple see-P' =
'I see the temple'

(15) and (16) have related transitive active sentences. For (15) it is (9) above, and for (16) it is (18):

(18) mamə eekə kiyənəwa

'I that say' =

'I say that'.

(17) contains a perceptive verb and does not have a non-causative active counterpart.[3] Thus like (14) it cannot represent a derived type.

Clearly, the involitive actors in these sentences are not likely candidates for subjecthood since they have none of the characteristics but position. The nominals in second position in (15)-(17) are inanimate and in the direct case, but if animate, they could occur for at least some speakers in the accusative:

(19) minihaTə maawə peenawa

'man-d I-a see-P' =

'The man sees me'

The possible accusative case militates against their being considered subjects, and even if they appear in the direct case there would seem no good reason for doing so on the basis of surface characteristics. The volitive optative cannot appear, whatever nominal in first person, but the involitive optative can:

minihaTə mamə peeneewi	'the man might see me'
maTə miniha peeneewi	'I might see the man'
*minihaTə mamə peennaⁿ	

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[3] It may causativize, but this is not important here, since some nominal not included in (17) would be actor (subject) of the causative.

*maTə miniha peenan.

Thus involitive clauses do not present us with likely candidates for subjecthood, at least on the basis of surface characteristics.

Sinhala also has a type of sentence that can be called inactive. This is a one-argument type with the NP, if animate, in the accusative. Here, as always, the accusative is optional, and there is a difference across speakers in the extent to which they use, or even allow, the accusative here. The type is nevertheless well attested:

(20) maawə waeTeewi
'I-a fall-P-wi' =
'I fall'

(21) minihawə lissuna
'man-a slip-P-past' =
'The fellow slipped.'

The general sense is that one is being acted upon by outside forces, so that there is neither volition nor "internal powering", and the underlying role can be considered simply patient. The volitive optative cannot occur, whatever the NP; the involitive can, even with first person NP's as shown in (20). Verbs in these generally include (P). Some inactive sentences have active counterparts. These differ only in the case of the NP, (direct rather than accusative), and do allow the volitive optative:

(22) mamə waeTennan
'I fall-nnan' =
'I'll fall (purposely).'

If there is a direction of derivation here, it seems clearly to be from the inactive to the active. That is, the verbs concerned are basically inactive non-volitional with their active volitional use a secondary one. One indication of this is the occurrence of (P) in both the inactive and active sentences.

Certainly the NP's of inactive sentences do not qualify as subjects on the basis of surface characteristics other than position.

A type of sentence that has been called passive is characterized by the potential occurrence of an agentive constituent with the postposition atin. The term passive is somewhat misleading, since such sentences are not the functional equivalent of the English passive (for the "unspecified agent" passive for example, Sinhala uses an active transitive without an expressed actor). They may be used in a capabilative sense as in (24), or most commonly with the sense that the action is accidental and the NP with atin an unwitting or involitive instrumentality, as in (23).

(23) man atin pingaanə biňduna
'I atin plate broke-P-past' =
'I broke the plate (accidentally)'

(24) banDa atin goyan hoňdəTə kaepenəwa
'Banda atin paddy well cut-P' =
'The paddy gets cut well by Banda!

With very few exceptions, (P) occurs on the verb, and there are related active transitive sentences without (P):

(25) *mamə pingaanə binda*

'I plate break-past' =

' I broke the plate (on purpose)'

(26) *banDa goyan kapənəwa*

'Banda rice-plants cut' =

'Banda reaps paddy'

The specification of an underlying role for the *atin* constituent is an interesting problem, which I shall not go into here except to say that it appears to have characteristic of both actor and instrument, but without necessarily having the volitive characteristics of actors in active sentences. Clearly, though, it does not have subject-like surface characteristics (except, again, for position). The second nominal in (23) and (24) might be a candidate for subjecthood, but the same considerations hold as for the NP in inactive sentences. That is, the volitive affix will never occur even if it is first person, though the involitive can; and, if animate, it may optionally occur in the accusative:

(27) *miniha atin maawə maereewi*

'man *atin* I-acc kill-P-wi[4]' =

'I might get killed by that fellow.'

In sum, in the sentence types dealt with above, which cover the major verbal ones in Sinhala, it has been difficult so far to find one in which there is an NP with surface-subject-like characteristics that is not equatable with actor. In fact, there is a problem in specifying underlying roles that I have skirted by being purposely vague. Depending on our specification of "actor", the equation with subject may be even narrower than that. Involitive and passive sentences, at least, include NP's that have some actor-like characteristics, but are not subject-like. What they lack is the volitional component of actors in active sentences, and they include other components not shared by the latter . What this means is that the single roles given earlier as a heuristic are inadequate, or cannot be applied in any simple way. This is one of the most interesting problems in the syntax of voice in Sinhala, to which I will return briefly later. Assuming for the moment that "actor" above includes a volitional component, the situation in Sinhala is very much like that in Newari, which Hale and Watters take to be a clearly actor-undergoer language:

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[4] *maerenəwa* 'kill-P' is also 'die', raising a familiar problem not dealt with here.

> In Newari simple clauses the verb is governed by an actor. If no actor is present, the verb is impersonal. If verbal concord marks the subject in Newari, only actors are subjects. The function of subject is either much less central in Newari grammar than it is in English grammar or else its markings are far more elusive. (1973. p. 186)

Thus in Sinhala as in Newari, on the basis of the examples examined so far, the subject becomes redundant given a specification of actor. (Or, if we were to take the wider definition of actor to include the relevant NP's of inactive and passive sentences, subject would become a subset of actor, and semantically signify volition. This would give it a role, but a highly limited one, in the grammar.)

Turning briefly to covert characteristics, it is, of course, possible that there are such characteristics defining some subject-like element with more generality than the surface characteristics do, but it is hard to imagine that being the case. First, there would have to be some element defined by required participation in some set of rules. If this coincided with the subject as defined in surface structure (as the covert and superficial characteristics of subject in English coincide) we would, in Sinhala, be faced with the same direct pairing with actor that was observed with superficial subject, and that would reinforce the conclusion that Sinhala is not a subject-object or subject-prominent language. If, on the other hand, there is some element thus defined that includes a wider set of rôles (and in fact it seems likely that there is at least one such element, to which we will turn briefly later) there would have to be some other motivation for meaningfully considering it to be a subject in underlying structure even though it was not reflected as such in superficial structure. That is, we would first have to have some reason to hold that something like NP + VP was more general in underlying than superficial structure, in that the NP subsumed a number of roles and functioned in some set of rules, while being mapped into a number of superficial functions in simple sentences. Then, we would have to have some compelling reason for considering it to be a subject. This would, in effect, turn case grammar, (and Lees' proposal for the optionality of deep subject and its restriction to agent) on its head, and is difficult to imagine.

As stated earlier, the fundamental analyses necessary to deal with the relevant covert characteristics has not been carried out for Sinhala in sufficient detail, but we might look briefly at some points of syntax that may help to make the preceding statements clearer.

Sinhala has a construction with a dative case NP, an infinitive (which may have accompanying constituents such as objects and adverbs) and the form *oonə*, with the sense 'want, need':

(28) *maTə yannə oonə*
'I-d go-inT *oonə*'
'I want to go'

(29) *lameaTə pot gannə oonə lu*
'child-d books, buy-infinitive *oonə* it-seems' =
'It seems the child wants to buy books'.

Let us assume a derivation in which a sentence is embedded in a structure like NP-d + NP + *oonə* under the second NP, so that sentences like (30) and (31) would be embedded in (28) and (29)[5]:

(30) *mamə yanəwa*
'I go'

(31) *lamea pot gannəwa*
'child books buy' =
'The child buys books'

There is an identity constraint between the dative NP of the matrix and the first NP of the embedded sentence, since forms like:

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[5] There is independent motivation for such a structure provided by sentences like *maTə potak oonə* 'I-d book-indef *oonə*' = 'I want a book', where *potak* 'book' is clearly an NP.

**maTə joon yanna oonə*

'I want John to go'

(with John in direct or any other case) do not occur. It appears, however, that only active sentences may be so embedded and that the constraint need not specify anything broader than actor.[6] This evidence thus reinforces the surface evidence and does not widen the utility of subject.

Sinhala has the kind of verb serialization familiar in South Asian languages and referred to by such terms as participial, gerundive, or absolute constructions; that is, such as:

(32) *mamə gedərə gihilla kaeaewa*

'I home go-ppl. eat-past' =

'I went home and ate'

(33) *maTə saddeak aehila diua*

'I-d noise-indef hear-ppl run-past' =

'I heard a noise and ran'

Although the derivation of such sentences is still not clearly understood, they do furnish some evidence for our purpose. For pedagogical purposes, it has been stated that these involve a same-subject constraint (as in Fairbanks, Gair and De Silva, 1968, p. 431), but if we assume any sort of reasonably direct mapping of underlying role onto surface structure, this is clearly inadequate. Assuming some kind of embedding and equi-deletion, which appears reasonable, (32) involves identity of subject *cum* actor, but in (33) it is between an involitive actor (or underlying experiencer) and an actor-subject. That is, the embedded sentence is clearly something like:

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[6] There are sentences like *lameaTə aehennə oonə* 'child-d hear-infinitive *oonə*' = 'the child must hear', which seem to embed involitive sentences; i.e., *lameaTə aehenəwa* 'child-d hear' = 'the child hears'. These involve another derivation, however, which is like that for *mamə yannə oonə* 'I must go' with the NP in the direct rather than dative case. That is, the underlying form is more like $_{S}[_{NP}[S]$+ *oonə*] with no equi-deletion and no case change in the embedded case. (This differs from my earlier (1970 p. 115) tentative analysis, but appears more satisfactory for a number of reasons not gone into here).

(34) *maT*$^{\text{ə}}$ *ṣaddeak* *aehuna*
'I-d noise-a hear-P-past' =
'I heard a noise'

while the matrix is active:

(35) *mam*$_{\text{ə}}$ *giyaa*
'I go-past' =
'I went'.

If, then, we were to define some underlying entity subsuming such combinations of role sets (rather than specifying the role sets directly) we would still be faced with the problem of whether there was any other evidence for considering it a subject in any significant sense.

Other evidence could be brought to bear from other aspects of the grammar, such as causativization, but it may suffice for the present to say that so far specifications in rules have either not required anything beyond single roles, as in the *oonə* case, or where they have, as in participial serialization, there has been no evidence for considering anything thus defined to be a subject in any of the usual senses.

On the basis of the evidence so far, then, we may conclude that there are neither surface nor covert characteristics leading us to grant the subject relation a central and fundamental position in Sinhala syntax.

There are, however, two kinds of sentences that cause problems for the analysis above.

First, and not surprisingly, a problem arises with single-argument sentences with inanimate NP's such as:

(36) bas-ekə yanəwa
'bus go' =
'The bus goes'

(37) gaha waeTenəwa
'tree fall-P' =
'The tree falls'.

These can never show a direct-accusative distinction, since the NP's are inanimate, nor do they involve volitive actors. One has no hesitation in classifying (37) with earlier (20), repeated below, as inactive:

(20) maawə waeTeewi
'I-a fall-P' =
'I fall'.

The verb of (36), however, does characteristically occur in active sentences, and the NP could be considered an actor. Even so, it is a non-volitive one, and the simplest solution here is to consider such sentences also to be inactive, so that the NP in (36) is no more a subject than that in (37).

A more difficult problem arises with verbs such as *dinənəwa* 'win', which characteristically occur with animate NP's in the nominative case. In sentences such as:

(38) *duTugaemunu* *ee* *yudde* *dinna*
'Dutugemunu that war win-past' =
'Dutugemunu won that war'

It is easy to interpret the first NP as agent, and the sentence as a transitive active one. However, in sentences such as:

(39) *miniha* *lotərayyə* *dinaawi*
'man lottery win-wi' =
'The fellow might win the lottery'

It strains credulity to consider *miniha* a volitive actor, however much he may want to win. An accusative is also not possible here, so that the equation of subject with volitive actor seems to break down. At present, I have no really satisfactory alternative to considering it a subject. Still, such sentences constitute a relatively small part of the language, and even if we consider them to be cases in which subjects are not volitive actors, Sinhala is clearly a long way from a language such as English, with its virtually omnipresent subject. This seems to be a fact that should be somehow represented in any typological scheme such as those of Li and Thompson or Hale and Watters.

Let us postulate, heuristically at least, something called the "primary NP constituent" (PNP) of a sentence; that is, a main NP constituent that appears in construction with a VP or V, and which may function in discourse deletion, verb serialization, causativization, reflexivization, etc. *i.e.* in many of the functions of subject in languages such as English. In principle, and probably in practice given adequate grammars, it should be possible to characterize the PNP for each language in terms of the kind and number of such functions into which it enters. It differs from topic in that it necessarily enters into strict subcategorizational relationships with the verb. It differs from subject, narrowly conceived, in that it may appear in one of several cases (in Sinhala, for example, as accusative in inactive sentences, dative in involitive ones, etc.). The PNP also does not necessarily enter into agreement relationships with the verb even in languages that have such relationships, though it, or some subset of it, might.[7] Obviously, if subject coincided with PNP, the language would be a subject-prominent one, on either the Li and Thompson or Hale-Watters typological scales. The less such congruence held, however, the less subject-prominent the language would be. That is, subject-prominence varies inversely with the degree of congruence of subject with PNP. High subject prominence would then imply that a number of underlying roles were being mapped into the subject position, and as subject-prominence decreased along the continuum toward non-subject-PNP languages (whether there are any of such a pure type, is of course, a separate matter) a lesser proportion of the underlying roles mapped into the PNP would appear as subjects.[8] Note that this continuum is different from the subject-topic one, although they may meet at their subject ends.

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[7] PNP, thus defined, seems to equate with Gupta's (1974) "theme" in Hindi. Interestingly also, for Sinhala it appears largely to represent the highest Fillmorian-type case in the sentence, as Gupta's theme does in Hindi.

Now, it seems clear that subject in Sinhala is virtually restricted to volitive actor. Even allowing for some subjects that are not such, it still appears clear enough that across the range of sentence types, the notion of subject is of no more importance for Sinhala than is a PNP that subsumes a number of roles and grammatical positions. Indeed, on the basis of the evidence thus far, it seems a great deal less so. Thus for a typology involving more or less subject prominence into which we are to fit Sinhala and distinguish it from languages such as English, the notion of PNP, and the degree of subject congruence with it, seems to be one worth exploring.

On final note: as stated earlier, I have not attempted to arrive at an adequate set of underlying syntactico-semantic roles in this paper, nor have I fully succeeded in doing so as yet. This has led me to be purposefully vague at some points. Even the loosely defined roles referred to, however, seem adequate to demonstrate the relatively direct relationship between subject and a single specificable role and the consequent limited function of subject in Sinhala. My present view (and the cause of the earlier vagueness) is that this role and others are not unitary but composite (i.e., combinations of feature-like elements such as actor + volitive, actor + experiencer, actor + instrument, etc.). Nevertheless, the specification of subject would still be to a unique feature complex, and not to some intermediate entity encompassing several such complexes, so that the basic point made in this paper would still hold. The broader and ultimately more interesting question of role definition is intimately bound up with the complex set of voice relationships that have been alluded to at several points in this paper and with causativization, transitivization etc. It also necessarily involves such fundamental questions as the utility of feature-changing or canse-changing rules versus movement rules in a language like Sinhala. This will be the subject of a future paper.

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[8] An interesting aspect of this is that subject may be included within PNP, as seems to be the case of Sinhala, but need not be. Given the equivalence of Gupta's theme with PNP (fn. 7 above), Hindi would be an instance in which subject was not included entirely within, but intersected PNP. This suggests another interesting sub-dimension on the subject-prominent scale.

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Some Syntactic Reflexes of Sub-Categories of Agent in Hindi

by

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The grammarians of Panini's school belonged to one of the world's few linguistic traditions that carefully distinguished terms for formal concepts from those of functional content. Modern Western linguistics in its use of terms like *subject* and *case* has provided good examples of the confusion and talking at cross purposes that results when this elementary distinction is not maintained. Now in general I take *subject* to be a term of purely formal content that can be defined roughly as the least marked expression of one or another (among several) semantic relations obtaining between anything expressed as noun phrase and some action or state expressed as verb phrase. Typical of the category *subject* in natural languages is position one for noun phrases in most English sentences: "*Ram* hit the ball."; the प्रथमान्त in Sanskrit: "देवदत्तेन *कट:* क्रियते"; and that with which the verb phrase agrees in Hindi: "*हम* फ़िल्म देखेंगे; हमने *फ़िल्म* देखी". However, since this symposium is considering 'the *notion* of subject', I assume that what is meant by the term *subject* is not the rather straightforward formal category defined above but the less patent semantic relation of entity to action that is traditionally termed कर्तृ in India, *deep subject* in some varieties of modern Western linguistics and which I shall call *agent* in this essay.

An agent in Hindi typically controls, initiates or instigates an action, is very often animate and usually receives expression as either subject (in the formal sense outlined above), with ने (the famous 'ergative') or with को:

1 मैं यह काम नहीं करूँगा 'I won't do this.'
२ बाप ने बेटे को नौकरी दिला दी 'The father had his son given a job.'
3 राम को धोबी को पैसे देने पड़े 'Ram had to pay the dhobi.'

However, there are other entities which are not animate, which cannot be said to control or instigate action, yet which receive formal treatment typical of agents:

४ हवा के झोंके चनार का तना झुका रहे थे
'The gusts of wind were bending the trunk of the chinar tree.'
५ उन की तीन सुविख्यात नाट्य-कृतियों ने उन्हें प्रतिभाओं की पंक्ति में बिठा दिया ks (from a blurb on the dust-jacket of Rakesh 1973)
'His 3 famous works of drama placed him in the ranks of genius'
६ रस्सी ने बल खाया 'The rope bent.'
७ क्या मेरा आना ज़रूरी है? 'Is it necessary for me to come?'

Now it may seem that a sufficiently abstract analysis of the roles the underlined items play in the sentences above would allow them to be assigned to categories other than that of agent. For example, रस्सी in sentence 6 may be interpretable as the locus or अधिकरण of the action of bending, especially in the face of a paraphrase like:

६ अ रस्सी में बल पड़ गया = k 'The rope bent.'

However, I do not intend to undertake such an abstract analysis here.

For one thing, it would be a repetition of ground already covered in the analysis of other languages, especially English. Secondly, it would probably require the introduction of transformations that relate sentences having little in common lexically (compare 6 and 6a where खा is replaced by पड़). Since the admissibility of such power in transformations is a subject of profound dispute, I have deliberately left the question of ultimate role-assignment open and proceeded as if the underlined items were indeed agents and discussed the idiosyncracies of syntactic behavior which set them off as a sub-class in opposition to the category animate agent.[2]

I. Inanimate agents tend not to demand को when they are in construction with V- ना हो or V- ना चाहिये :

८ आंधी आज आनी चाहिये ks 'The storm should come today.'

९ आंधी को आज आना चाहिये WK *s "

10 राम को आज आना चाहिये ks 'Ram should come today.'

11 उसकी किताब अब निकलनी है ks 'His book should come out now.'

1२ उसकी किताव को अव निकलना है *ks "

13 उसकी वहनों को अव निकलना है ks 'His sisters should come out now.'

The explanation for this I think lies in the fact that V-ना हो and V-ना चाहिये in their root senses express obligation on their agents. Now one is obliged only when one is aware of and recognizes obligation. Such awareness is the property of animate beings only, of course. Thus, आंधी 'storm' and किताब 'book' cannot occur with V- ना हो or V- ना चाहिये except in their epistemic senses where not obligation but the speaker's judgment of probability or fittingness is expressed:

८ आंधी आज आनी चाहिये 'Chances are that the storm will come today.'

११ उसकी किताव अव निकलनी है 'His book should be coming out (any time) now.'

V- ना हो and V- ना चाहिये when used in their epistemic senses do not govern the post-position को regardless of the animateness or not of the agent (although not every speaker accepts this construction with animate agents):[3]

१४ मुझे बताओ, आदमी कैसा होना चाहिये ? ks

'Tell me what the man (you'd like) ought to be like.'[4]

१५ राम आज आना चाहिये k *s 'Chances are Ram'll come today.'

१६ उसकी वहनें अव निकलनी हैं k *s

'His sisters should be coming out any moment now.'

II. Another latent opposition between animate and inanimate agents is manifested in their differential reaction to collocation with the modals सक and पा. With animate agents and in non-stative expressions[5] either सक or पा may occur, apparently indiscriminately;

१७ राम बासी रोटी नहीं खा सका ks 'Ram was unable to eat
१८ राम वासी रोटी नहीं खा पाया ks the left-over roti.'

But with many types of inanimate agents is preferred:[6]

१९ मैंने रस्सी को कितना ही मोड़ा लेकिन वह वल खा न सकी ks
२० मैंने रस्सी को कितना ही मोड़ा लेकिन वह वल खा न पाई Wk *s

'No matter how I twisted the rope it would not bend.'

२१ उनकी ये 3 नाट्य-कृतियां उन्हें प्रतिभाओं की पंक्ति में नहीं बिठा सकीं ks
२२ उनकी ये 3 नाट्य-कृतियां उन्हें प्रतिभाओं की पंक्ति में नहीं बिठा पाईं Wk *s

'These 3 dramatic works of his were unable to place him in the ranks of genius.'

III. When nominalization of some subordinate clause occurs in Hindi the agent typically receives the post-position का (or के):

२३ राम बोल रहा है/बोलनेवाला है । यह अभी ठीक नहीं है (Wk)

'Ram is speaking/is about to speak. This is not good now.'

२४ राम का बोलना अभी ठीक नहीं है ks

'It would be best were Ram not to speak now.'

२५ जब राम ठीक होगा तब मुझे फ़ौरन ख़बर दे देना ks
२६ राम के ठीक होते ही मुझे ख़बर दे देना ks

'Inform me as soon as Ram gets better.'

With singular, definite, animate agents this post-position must appear

२७ राम बोलना अभी ठीक नहीं है *ks (cf 24)

२८ राम ठीक होते ही मुझे ख़बर दे देना *ks (cf 26)

For inanimate agents, however, (and even for certain animates provided they are plural and indefinite) there is the option of deleting का or के:

२९ आंधी का आना अभी ठीक नहीं है k *s

30 आंधी आनी अभी ठीक नहीं है s Wk (cf 27)

'It would be better if the storm did not come now.'

31 पुलिस के आते ही चोर भाग गए ks

3२ पुलिस आते ही चोर भाग गए k Ws (plural indefinite)

'As soon as the police arrived the thieves fled.'

33 परिस्थिति के ठीक होते ही मुझे ख़बर दे देना ks

3४ परिस्थिति ठीक होते ही मुझे ख़बर दे देना ks (cf 28)

'Let me know as soon as the situation improves.'

In fact, if the agent of such a nominalized clause is itself a nominalized clause, का or के must be deleted:[7]

३५ मेरे आने के ठीक होते [illegible] मुझे ख़बर दे देना *ks

३६ मेरा आना ठीक होते ही मुझे ख़बर दे देना k *s

'Let me know as soon as it's alright for me to come.'

The same is true for agents of certain stereotyped impersonal clauses

३७ पांच के बजते ही वंदर छिप गए *ks ३८ पांच बजते ही वंदर छिप गए ks

'As soon as it struck five the monkeys hid.'

These data suggest that the integrity of the agent or its independence of the action it performs is an important perceptual category which is reflected in Hindi syntax and which should be considered to be a component of agentness par excellence.

IV. Only animate agents endowed with the power to communicate their desires (and to understand such communication) may participate in true[8] causatives as either instigating agents (प्रयोजककर्तृ) or intermediate agents (प्रयोज्यकर्तृ):

३९ ठेकेदार ने मज़दूरों से दीवाल गिरवा दी ks

'The contractor had the workers knock down the wall.'

४० आंधी ने हवा के झोंकों से दीवाल गिरवा दी *ks

'The storm had the gust of wind knock down the wall.'

४१ मैंने नौकर से घोड़े को पानी पिलवा दिया ks

'I had the servant water the horse.'

४२ घोड़ी ने नौकर से अपने बच्चे को पानी पिलवा दिया *ks

'The mare had the servant water the colt.'

Here the instigating agent, namely, घोड़ी 'mare', is not possessed of the power to communicate.

४३ मैंने गाय से बछड़े को घास खिलवा दी *ks

'I had the cow feed the calf grass.'

Here the intermediate agent, namely, गाय 'cow', is not possessed of the power to receive communication.

Presumably this restriction would exclude even human agents from participation in true causatives if for some reason they are unable to communicate: neo-nates, catatonics, sleep-walkers, etc.

V. Hindi in common with many languages in South and Central Asia possesses a system of what are frequently termed compound verbs. In Hindi these are composed of the stem of the verb that expresses the action plus a secondary element (homophonous with some main verb in the language) plus the desinence. As participants in compound verbs these secondary elements have lost almost all of their lexical meaning. Instead, as a class, they express highly abstract aspectual concepts. Of course, as individual mutually contrastive members of this class they may express additional abstract concepts. For example, both sentences 44 and 45 express perfective aspect in contrast to sentence 46:

४४ राम ने दरवाज़ा बन्द कर दिया ks 'Ram closed the door.'
४५ राम ने दरवाज़ा बन्द कर लिया ks 'Ram closed the door.'
४६ राम ने दरवाज़ा बन्द किया ks 'Ram closed the door.'

However, in opposition to one another, in 44 and 45 subsidiary contrasts come to the fore. Sentence 44 may suggest that Ram closed the door by pushing it while 45 may suggest that he pulled it shut. Or, 44 may suggest that Ram closed the door for (or against) another person while 45 may suggest that he did so for his own benefit.

The semantic function of the compound as opposed to the simple verb is, with regard to the phenomena under investigation in this paper, a constant factor[9] and, as such, need not be considered further.[10] The subsidiary contrasts involved in the choice among secondary elements (such as those in sentences 44 and 45), however, are sensitive discriminators of sub-categories of agent.

Thus, for verbs that allow animate agents to select either ले 'take' or दे 'give' as auxiliaries, there is only the auxiliary दे if the agent is inanimate. ले is ruled out:

४७ हवा के झोंके ने दरवाज़ा वन्द कर दिया ks

४८ हवा के झोंके ने दरवाज़ा बंद कर लिया *ks

'A gust of wind blew the door shut.'

४९ नौकर ने मुन्ने को मेरी गाड़ी में बिठा दिया ks

'The servant seated the kid in my car.'

५० मैंने मुन्ने को अपनी गाड़ी में विठा लिया ks

'I seated the kid in my car.'

५१ उनके तीन नाटकों ने उन्हें प्रतिभाओं की पंक्ति में विठा दिया ks

५२ उनके तीन नाटकों ने उन्हें प्रतिभाओं की पंक्ति में विठा लिया *ks

'His three plays placed him among the luminaries of genius.'

This differential treatment of animate as opposed to inanimate agents suggests that instead of the traditional view of auxiliaries ले and दे as co-ordinate terms in a binary alternation 'performance for the benefit of the agent' versus 'performance for the benefit of another'[11] we might more accurately characterize the contrast as 'performance for the benefit of the agent' versus 'performance unmarked with regard to the agent's benefit' (or simple 'performance'). This would make ले the marked member of a privative opposition. Its presence in a compound verb would unambiguously express what I shall provisionally term INTENT. The use of दे would mark neither the presence nor the absence of this category.

Of course, दे is not a possible auxiliary with many transitive verbs belonging to what has been called the reflexo-ingestive subset. Verbs like देख 'see', पहन 'put on, wear' and खा 'eat' select ले as their semantically least-marked auxiliary when they occur compound:

५३ राम ने खाना खा लिया ks 'Ram ate his dinner.'
५४ राम ने खाना खा दिया *ks[12] 'Ram ate his dinner.'

What happens in those rare instances when such verbs are in construction with inanimate agents?

५५ रस्सी ने वल खा लिया odd: k *s 'The cord bent.'
५६ रस्सी वल खा गई ks 'The cord bent.'

It would appear that the basically intransitive meaning of बल खा 'bend' is being reflected in the selection of the intransitive auxiliary जा.[13]

Of the twenty-two auxiliaries identified so far[14] at least two and possibly three others distinguish animate from inanimate agents: मार, निकाल and बैठ:

५७ राम ने दरवाज़ा वंद कर मारा k *s 'Ram slammed the door shut.'
५८ हवा के झोंके ने दरवाज़ा वन्द कर मारा *ks
'The gust of wind slammed the door shut.'

The use of मार expresses a certain carefree ebullience of manner (फ़ाक़ामस्ती) which evidently cannot be predicated of inanimates.[15]

५९ उसने रासायनिक खाद से अच्छी फ़सलें उगा निकालीं ks
'Using chemical fertilizer he was able to bring in a good crop'
६० रासायनिक खाद ने अच्छी फ़सलें उगा दीं ks
६१ रासायनिक खाद ने अच्छी फ़सलें उगा निकालीं *ks
'The chemical fertilizer brought up a good crop.'

It seems that निकाल 'take out' like ले, when used as auxiliary in a compound verb demands the capacity to INTEND in its agent.[16]

As does auxiliary बैठ 'sit':

६२ मुझे डर है कहीं राम दरवाज़ा बन्द कर न बैठे. ks
'I'm afraid that Ram might go and shut the door.'
६३ मुझे डर है कहीं हवा का झोंका दरवाज़ा बन्द कर न बैठे *ks
६४ मुझे डर है कहीं हवा का झोंका दरवाज़ा बन्द कर न दे k *s
'I'm afraid that a gust of wind might blow the door shut.'
६५ मुझे डर है कहीं राम सारा खाना खा न बैठे ks
'I'm afraid that Ram might go and eat up all the food.'
६६ मुझे डर है कहीं रस्सी बल खा न बैठे Ws *k
६७ मुझे डर है कहीं रस्सी बल खा न जाए ks
'I'm afraid that the cord might bend.'

However not all speakers agree that inanimate agents are impossible for compound verbs having बैठ as auxiliary.

It is possible to tie all the disparate facts presented here together by thinking of animates as the less-marked expression of the category agent and inanimates as the more-marked. As the less-marked category animate agents exhibit less syncretism than inanimates.[17] Thus, the deletability of का or के after the inanimate agents of nominalized clauses may be seen as collapsing them formally with inanimate objects. Contrast 34 and 68 with 26 and 69:

३४ परिस्थिति ठीक होते ही मुझे ख़बर दे देना (see page 4 for gloss)
६८ परिस्थिति देखते ही मुझे ख़बर दे देना
'Send me word as soon as you get a look at the situation.'
२६ राम के ठीक होते ही मुझे खबर दे देना (see page 4 for gloss)
६९ राम को देखते ही मुझे ख़बर दे देना
'Send me word as soon as you spot Ram.'

Here the morphological distinction of agent and object (के vs. को) is neutralized for inanimates (Ø vs. Ø).

Secondly, as the more-marked category inanimate agents are subject to defectivation: "The marked category may simple lack certain categories present in the unmarked category."[18] They are paradigmatically less flexible: fewer, less finely differentiated semantic distinctions can be projected onto them. This generalization will account for the agreement in the direction of assymetry exhibited in each set of contrasting data adduced here: I. The inanimate agent occurs with V-ना चाहिये and V-ना हो only in their epistemic senses while the animate agent occurs with them in both epistemic and root senses. II. Inanimates collocate easily only with सक: animates, with both सक and पा. III. The complexity of the compound verb system is reduced for inanimate agents. IV. Inanimate agents may not occur as either instigating or intermediate agents in true causal constructions. If we take morphological and semantic categories together, the marginal distinction between syncretization and defectivation dissolves, leaving us with a single principle to account for all the assymetries and reductions observed here.

* * *

NOTES

[1] The letter k refers to the judgments on acceptability made by Mrs. Pratibha Kela of Dibai, U.P., now of Ann Arbor, Michigan. The letter s refers to the judgments of Mrs. Urmila Singh of Honolulu, Hawaii. Unprefixed the letters mean that the respondents find the utterance perfectly acceptable in the meaning indicated. '*' means they do not accept the utterance in the meaning indicated (although it may be alright in some other meaning). 'W' means the utterance while acceptable is worse than some presented alternate. ' ' means that the respondents find the utterance equivalent in meaning to some other presented. As the research was carried out at two widely separated points it proved impossible to reconcile the reactions of the respondents in all respects. Mrs. Singh demanded

certain changes. Her reactions as reported in this paper are not to the sentences as given here but to sentences with the following modifications: The phrase हवा के झोंके was simplified to हवा. The word रस्सी was replaced by the word कमर 'waist' in all sentences containing वल खा. The analysis is based primarily on the reactions provided by Mrs. Kela.

[2] Maintaining an austere celibacy in the face of those tempting theoretically important issues is especially important for linguists of a language an understudied as Hindi. Too many have been seduced into transposing controversies of the day from an English data base to Hindi where the phenomena in question may not be of the same relative importance. More seriously the allure of the 'big questions' tends to divert attention from problems that are specific to Hindi (or which happen not to exist in English).

[3] It was not possible to discover whether such speakers use this construction with को of agent in an epistemic sense. In other words for speaker s can sentence 10 mean 'Chances are that Ram will come today.'?

[4] Speaker k finds आदमी को equally acceptable here but in another sense: 'Tell me what a man should be like (and I'll be that man)'

[5] For the distinction of stative and non-stative uses of सक see Hook 1974: 91-93.

[6] However, those noun phrases which are semantically objects (कर्मन्) and which show up as the subjects of anti-causative verbs do occur with पा even though they denote inanimate beings:

मैं ने रस्सी को कितना ही मोड़ा लेकिन वह मुड़ नहीं पाई ks

'No matter how hard I twisted the rope I couldn't get it to bend.' (literally: '...it didn't manage to bend.')

[7] Ultimate assignment of such clauses to the category agent is problematical to say the least. Unlike other inanimate agents they never occur, to my knowledge, with the post-position ने.

[8] The use of the term causative in descriptions of Hindi provides another glaring example of confusion engendered by using one and the same term now in a formal sense now in a functional sense. As a result it is necessary to specify true causatives to distinguish these semantically causative constructions from those in which what is called a 'causative affix' (-आ-) is present in the verb. Such verbs, semantically simple transitives, co-occur freely with inanimate agents:

उनकी 3 सुविख्यात नाट्य-कृतियों ने उन्हें प्रतिभाओं की पंक्ति में विठा दिया

'His 3 famous dramatic works placed him among the leading lights...'

For a well-reasoned typology of causativity in Indian languages see Masica 1971, Chapter Two.

[9] That is, as far as I know, the manifestation of a verb either as simple or as compound never depends on the nature or the subcategory of agent in construction with it.

[10] The interested reader is referred to Hook 1974: 145-318

[11] See Van Olphen 1970: 164; Gaeffke 1967: 138-9; Kellogg 1938: 262; Bahl 1967: passim. Two writers who allow the possibility of an assymetrical contrast between auxiliaries ले and दे are McGregor 1972: 101 and Hacker 1958: 194, 202.

[12] For some speakers this is acceptable in the meaning of खा दिखाया: 'He showed (us) he could eat his dinner (by eating it).' See Hook 1974: 126-7.

[13] Notice, for example, that the predicate भय खा 'become afraid', although governing an animate agent, does not co-occur with auxiliary ले:

राम ने भय खा लिया *s राम भय खा गया s 'Ram got scared.'

[14] These are आ, उठ, खड़ा हो, चल, चुक, छोड़, छोड़ दे, जा, डाल, दे, धर, निकल, निकाल, पड़, बैठ, मर, मार, रख, रख दे, रह, ले, ले जा For a discussion of the means used to arrive at this list see Hook 1974: 17-195.

[15] For further remarks on this unusual auxiliary see Hook 1974: 137-8.

[16] For further remarks on निकाल see Hook 1974: 134-5.

[17] "...distinctions existing in the unmarked member are often neutralized in the marked categories." Greenberg 1966: 73.

[18] Greenberg 1966: 74.

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The Notion 'Subject'

A Note on Hindi-Urdu, Kashmiri, and Panjabi

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1.0 In recent years, the challenging but difficult task of searching for the categories of universal grammar has attracted much attention. Linguists of all persuasions have been attempting to characterize lexical categories such as noun, verb, etc., and functional or relational categories such as subject, object, etc. The aim of this paper is to characterize 'subject' in three South Asian languages, namely Hindi-Urdu, Kashmiri, and Panjabi.[1] The theoretical framework on which our discussion is based is that of transformational grammar (Chomsky 1957 and 1965), relational grammar (Postal and Perlmutter 1974 and Johnson 1974), and the multifactor universal definition of subject (Keenan 1974).

The evidence from the three languages we have examined here raises several important theoretical questions. For instance, it is clear from our discussion that 'subject' is not a discrete relational category; rather, there is a hierarchy of 'subjecthood' in these three languages. The question naturally arises: if relational categories are not discrete, what then does it mean to treat them as primitives in the theory of relational grammar? Our discussion shows that in these languages, case-assignment may be a governed phenomenon and verbal agreement may have to be stated in terms of the nominative case. The questions naturally arise: is case-assignment a governed phenomenon? is verb-agreement to be stated in terms of cases rather than relational categories? We shall show that in these languages passive neither completely upgrades the original object to (derived) subjecthood nor completely downgrades the original subject to adjuncthood. What then should be a universal characterization of passive? Should passive be characterized primarily as a process of downgrading the original subject, as suggested in Keenan (1975), and the upgrading of the original object be considered a language-specific phenomenon?

Before we proceed to discuss the data from the three languages to justify the above questions, two digressions are in order. The first digression is a historical one and relates to the discussion of the notion 'subject' in the Sanskrit and Hindi grammatical traditions. The second digression attempts to demonstrate the relevance of relational grammatical concepts as well as the criteria suggested in Keenan (1974) to our discussion. It will be shown that both of these are essential to our purpose.

2.0 In the Sanskrit grammatical tradition, no distinction is made between the notion 'agent' and the notion 'subject'. For instance, in Pāṇini, the notion 'agent' is defined with reference to its being 'independent'.[2] In addition to this semantic property, in the Sanskrit tradition, the formal property of case-marking is also employed to identify an agent. None of these properties, however, is put forward as necessary or sufficient for defining agent. Pāṇini also characterizes agent as a verb-governed phenomenon, e.g. he states that verbs such as *ruc* require their agent to be in the dative case (Vasu 1891: I. IV. 32 and 33). In general, however, in the Sanskrit grammatical tradition, it is assumed that given a sentence, it is intuitively obvious what the agent of that sentence is. Basically, the nominative case is so strongly identified with agenthood or subjecthood Taraporevala (1962) says: 'The use of the nominative as subject is too well-known to need exemplication' (1962: 28).

2.1 In the Hindi grammatical tradition, a basic distinction is made between the semantic category agent or actor and the functional or relational category subject.[3] Guru (1952) defines subject in the following terms:

> The words that denote the matter (*vastu*) about which something is said are called subject, e.g. *aṭma* *ᵊmᵊr* *hɛ* 'the soul is immortal', *ghora* *dɔṛ* *rᵊha* *hɛ* 'the horse is running', *ram* *ne* *ravəṇ* *ko* *mara* 'Ram killed Ravan'. In these sentences, *aṭma* 'soul', *ghoṛa* 'horse' and *ram* *ne* 'Ram + agentive postposition' are subjects because something has been said about them... (Guru 1952: 20).

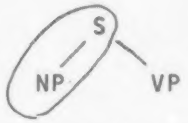
Vajpeyi makes similar observations: 'That about which something is said is the known, the subject' (Vajpeyi 1959: 333). Guru claims that 'subject and predicate in any sentence are usually obvious' (Guru 1952: 509), but he himself is sometimes led to such observations as the following: 'In the passive voice, subject is usually merged in the verb, e.g., *mujhse* *cᵊla* *nᵊhĩjata* 'by me (it) is not walked', *ləṛke* *se* *bolte* *nəhĩ* *bənta* 'by the boy (it) is not talked'. In these sentences, the subjects 'walk' and 'talk' respectively are merged in the meaning of the verbs' (loc. cit.). Also, dealing with the so-called dative subject presents its own problems for both Guru and Vajpeyi.[4]

3.0 Following the Chomskyan revolution in linguistics, several fundamental questions have been raised with regard to the nature of categorial concepts such as noun, verb, etc., and functional or relational concepts such as subject, object, etc. Without going into a great deal of detailed history, it may be sufficient for our purpose to revisit the definition of subject as given in Aspects (1965) by Chomsky. In his view it is unnecessary in a grammar to characterize both categories and functions. If the grammar is constructed according to the model suggested by him, then the categories will be automatically defined by the terminal symbols of the phrase structure rules, and certain sub-configurations of the P-markers will automatically characterize functions such as 'subject of', 'object of', etc. For instance, given rules A and B, the sub-configurations C and D (circled for easy identification) define 'subject' and 'object', respectively.

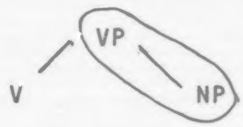
A. S —> NP VP

B. VP —> V NP

C.



D.



This assumes that the grammars of all human languages will have rules such as A and B and that there will be no rules such as E through I in any human language.

E. S —> VP NP

F. VP —> NP V

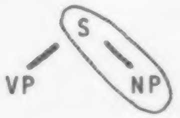
G. S —> V NP NP

H. S —> NP V NP

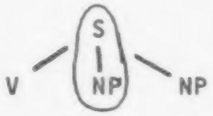
I. S —> NP NP V

This by now has been proven to be an untenable position. Not only have rules such as E through I been proposed for human languages, but convincing arguments have been advanced to demonstrate the inadequacy of rules such as A and B even for English (e.g. see McCawley 1970). The conclusion seems unavoidable that in order to maintain the 'sub-configuration of P-marker' approach as suggested in Chomsky (1965), certain unwarranted assumptions will have to be made. For instance, it will have to be assumed that C, J, and K represent the same function:

J.



K.



3.1 The relational grammatical approach has been proposed as a serious alternative to the Aspects model. The aim of relational grammar is to characterize the universal set of transformational rules from which all languages select some subset. If transformational rules are formulated in terms of P-markers as suggested in Chomsky 1965, problems similar to the one discussed above arise. Hence, relational grammar treats certain relations as primitives of the linguistic theory. The argument is that if transformational rules are stated in terms of grammatical relations rather than P-markers, this captures formally the universal character of these rules. Besides, grammatical relations such as subject, object, etc., are important at non-deep structure levels, too, and the 'sub-configuration of P-marker' approach does not characterize these relations even at deep structure level adequately. Certain devices of relational grammar define the relations of subject, object, etc., at non-deep structure levels adequately.[5] Note that relational grammar treats grammatical relations as primitives; therefore, in this model, the question of defining subject, object, etc., is not relevant. Nevertheless, to the extent that relational grammar makes crucial use of the notion of Accessibility Hierarchy (Keenan and Comrie 1972), it is relevant to look into what is meant by designations such as subject, object, etc.

3.2 In Keenan (1974) there is an attempt to arrive at a universal characterization of 'subject'. In his paper, sets of semantic, formal, and behavioral properties are suggested, out of which different languages select different subsets. None of the individual properties in itself is a defining characteristic of subject. Among semantic properties are properties such as actor or agent; among formal properties are properties such as verbal agreement, case marking, etc.; and among behavioral properties are properties such as the controller of the syntactic processes of Reflexivation, Equi, Conjunction Reduction, etc.

4.0 The three languages under discussion are traditionally considered Indo-Aryan, except Kashmiri, which some scholars have assigned to the Dardic branch of Indo-Aryan (for full discussion see B. Kachru 1969a and 1973: 1-17). The main linguistic differences among Hindi-Urdu, Kashmiri, and Panjabi are given below.

Kashmiri differs significantly from Hindi-Urdu and Panjabi in its word order. The preferred order of elements in Kashmiri is subject, verb, and object, as opposed to subject, object, and verb in Hindi-Urdu and Panjabi. Note, however, that in embedded sentences, Kashmiri prefers subject, object, and verb. Syntactically, Panjabi is very similar to Hindi-Urdu. Among modern Indo-Aryan languages, Panjabi is unique in having developed tonal contrasts, i.e. low, high, and mid. There is a close correlation between the h and the voiced aspirates of Hindi-Urdu and Panjabi tones.

5.0 We shall first discuss the notion 'subject in Hindi-Urdu' and then determine how similar to, or different from, Hindi-Urdu Kashmiri and Panjabi are. We will make some brief observations on the semantic and formal properties and then discuss the behavioral properties in detail.

5.1 As far as the semantic properties are concerned, none of them, or not even a cluster of them, is either necessary or sufficient to characterize the notion subject in Hindi-Urdu. Note that not only actor/agent, but also victim/patient/goal, recipient, experiencer, range, etc., can be the subject of a sentence.[6]

5.2 In attempting to characterize the subject of a Hindi-Urdu sentence in terms of the formal properties of verbal agreement and case-marking, one immediately faces several problems. The first, and one of the most well-known and widely discussed problem, is that of determining whether Hindi-Urdu is a Nominative-Accusative or an Ergative-Absolutive type language. If it is claimed that it is the latter, then one must determine the degree to which it is an Ergative-Absolutive language. It is well-known that in a certain sentence-type the verb in Hindi-Urdu agrees either with the subject,or with the direct object, or with neither.[7] On the basis of the object-agreement type, Hindi-Urdu has usually been described as an Ergative language. Recent investigations have shown that except for superficial case-marking, or, rather, postposition-marking, Hindi-Urdu is not an Ergative-Absolutive language (see Pandaripande and Kachru 1976). We will not repeat the whole range of arguments here to demonstrate this. The generalization about verbal agreement seems to be as follows. If the subject is unmarked for case, the verb agrees with it. If the subject is marked for case (i.e. is followed by a postposition), the verb agrees with any other unmarked noun in the sentence. If, however, there are no unmarked nouns in the sentence, the verb occurs in its neutral form (masculine third-person singular).[8] Thus, verbal agreement is neither necessary nor sufficient to characterize the subject. As far as superficial case-marking (with postposition) is concerned, Hindi-Urdu exhibits the following sentence patterns:[9]

1. ləṛka kitab pəṛh rəha hɛ
boy book read -ing is

The boy is reading the book.

2. ləṛke ne kitab pəṛhī
boy ag. book read

The boy (agentive) read the book.

3. ləṛke se kitab nə pəṛhī gəī
boy in. book neg. read went

The boy (instrumental) could not read the book.

4. ləṛke ko mā̃ yad aī
boy dat. mother memory came

The boy (dative) remembered his mother.

Thus, case-marking is not a reliable criterion for defining the subject, either.[10]

5.3 Let us now turn to the behavioral properties of nouns in Hindi-Urdu sentences. We will discuss the behavior of nouns basically with respect to only those rules which crucially use the notion 'subject of the sentence'. Some such rules in Hindi-Urdu are the rules of Reflexivization, Equi, Raising, and Conjunction Reduction. The subject crucially controls the processes of Reflexivization and Conjunction Reduction, and only the subject is accessible to the rules of Equi, Raising, and Conjunction Reduction.[11] We will first determine the properties of the unmarked intransitive and transitive subject and then those of the marked (agentive) transitive subject, the dative subject, and the instrumental (or oblique) subject.[12] Since in terms of relational grammar passive is a rule that creates a new subject (via promoting the direct object while downgrading the original subject), we will also examine the status of the so-called derived subject of the passive in the languages under consideration.[13]

4.3.1 First consider the unmarked subject of intransitive and transitive sentences:

5. ləṛka$_i$ əpne$_i$ ghər gəya[14]
boy his own house went

The boy$_i$ went to his$_i$ house.

6. ləṛkī$_i$ əpnī$_i$ kitab pəṛh rəhī hɛ
girl her own book read -ing is

The girl$_i$ is reading her$_i$ book.

7. ram ghər jana cahta hɛ
Ram home to go wants

Ram wants to go home.

8. ram kitab pəṛhna cahta hɛ
Ram book to read wants

Ram wants to read the book.

9. ram ne šyam ko ghər jate hue dekha
Ram ag. Shyam obj. home going saw

Ram saw Shyam going home.

10. ram ne šyam ko šīla ko pīṭte hue dekha
Ram ag.Shyam obj. Sheila obj. beating saw

Ram saw Shyam beating Sheila.

11. peṛ ke nīce bɛṭh kər ləṛka ū̃gh rəha hɛ
tree below sitting boy doze -ing is

The boy is dozing sitting under the tree.

12. peṛ ke nice bɛṭh kər ləṛka kitab pəṛh rəha hɛ
tree below sitting boy book read -ing is

The boy is sitting under the tree reading the book.

13. kitab pəṛh kər ləṛka so jaega
book reading boy sleep will go

The boy will go to sleep (after) reading the book.

14. kitab pəṛh kər ləṛka pətr likhega
book reading boy letter will write

The boy will write the letter (after) reading the book.

The unmarked subjects of the intransitive and transitive sentences control Reflexivization (5-6), undergo Equi (7-8) and Raising (9-10), and both control and undergo Conjunction Reduction (11-14).

Note that neither the indirect object (henceforth, IO) nor the direct object (henceforth, DO) controls or undergoes these processes. The following examples illustrate this with reference to Reflexivization and Conjunction Reduction:

15. *ram$_i$ ne šyam$_j$ ko əpnī$_j$ kitab dī
Ram agentive Shyam dat. his own book gave

Ram$_i$ gave Shyam$_j$ self's$_j$ book.

16. *ram kitab de kər šyam ghər gəya
Ram book giving Shyam home went

Ram having given (him$_i$) the book, Shyam$_i$ went home.

17. *ram šyam ko kitab de kər ghər gəya
Ram Shyam dat. book giving home went

Ram having given the book to Shyam$_i$, (he$_i$) went home.

18. raj$_i$ ne sīta$_j$ ko apne$_j$ ghər mẽ dekha
Raj ag. Sita obj. self's house in saw

Raj$_i$ saw Sita$_j$ in self's$_j$ house.

19. *sīma dhəkka de kər dərvaza bənd ho gəya
Sima push giving door closed became

Sima having pushed, the door closed.

20. *bənd ho kər sīma ne dərvaze ko citkhinī ləga dī
close becoming Sima ag. door dat. bolt attached

(The door) having closed, Sima bolted the door.

(15) and (18) are ungrammatical because the IO and DO respectively control Reflexivization in them. (16) and (19) are ungrammatical because the rule of Conjunction Reduction has applied and the IO and the DO respectively have undergone deletion. Sentences (17) and (20) are ungrammatical because in these cases, the IO and the DO respectively are the controller of the rule of Conjunction Reduction. As, in the grammar of Hindi-Urdu, Raising is a minor rule and we have indicated how it functions (see footnote 21), there is no need here to demonstrate that IO and DO do not undergo the rule. As regards

Equi, the properties of this rule have been discussed in detail in Subbarao 1974 (see also footnote 20).

Sentences (5)-(14) are evidence that, in terms of the rules discussed here, the unmarked subjects of the intransitive and transitive sentences are subjects.

5.3.2 Now we will determine how the marked (agentive) subject of a transitive sentence behaves with respect to these rules. Consider:

21. ləṛke$_i$ ne əpnī$_i$ kitab pəṛh lī
boy ag. self's book read

The boy$_i$ read his$_i$ book.

22. ləṛke ne ghər jana caha
boy ag. home to go wanted

The boy wanted to go home.

23. ram ne pətr likhne kī bat bətaī[15]
Ram ag. letter writing poss. matter related

Ram told of writing the letter.

24. mɛ ne sīta ko koṭ pəhne hue dekha[16]
I ag. Sita obj. coat wearing saw

I saw Sita wearing a coat.

25. ghər a kər mohən ne khana khaya
home coming Mohan ag. food ate

Mohan ate (after) coming home.

26. pətr pəṛh kər vəh xus ho gəya
letter reading he happy became

He became happy (after) reading the letter.

The agentively marked subject of the transitive sentence controls Reflexivization (as seen in 21), both controls (22) and undergoes Equi (23), undergoes Raising (24), and both controls (25) and undergoes Conjunction Reduction (26). Thus, the marked (agentive) subject of the transitive sentence shares the behavioral properties of the unmarked intransitive and transitive subject. In the remainder of this paper, we will ignore the marking and refer to intransitive subjects (henceforth, SI) and transitive subjects (henceforth, ST) only.

5.3.3 The dative subject (henceforth, S DAT) controls Reflexivization (27) and Conjunction Reduction (28) and controls (30) and undergoes (31) Equi. It does not undergo Conjunction (29) or Raising (32-33). Consider:

27. lərke$_i$ ko əpne$_i$ dost yad ae
boy dat. self's friends memory came

The boy$_i$ remembered his$_i$ friends.

28. skūl ka mɛdan dekh kər lərke ko dost yad ae
school poss. field seeing boy dat. friends memory came

The boy remembered (his) friends when he saw the school grounds.

29. *dost yad a kər lərka udas ho gəya
friends memory coming boy sad became

Having remembered his friends, the boy became sad.

30. sīta ko vəhā̃ jane kī bat yad hɛ[17]
Sita dat. there going poss. matter memory is

Sita remembers going there.

31. ram ne bhūkh ləgne kī bat bətaī[18]
Ram ag. hunger appearing poss. matter related

Ram told of being hungry.

32. *mɛ̃ ne ram ko bhūkh ləgte hue dekha
I ag. Ram obj. hunger appearing saw

I saw Ram being hungry.

33. *mɛ̃ ne ram ko pyas ləge hue paya
I ag. Ram obj. thirst appearing found

I found Ram thirsty.

Thus, the S DAT does not share all the properties of SI and ST.

5.3.3 Finally, we will determine the properties of the instrumental and other oblique subjects (henceforth, S OBL). Consider:

34. ləṛke se əpnī kitab nə pəṛhī gəī
boy in. self's book neg. read went

The boy$_i$ could not read his$_i$ book.[19]

35. yəhã bɛṭh kər ləṛke se kitab nə pəṛhī jaegī
here sitting boy in. book neg. read will go

The boy will not be able to read the book sitting here.

36. *kitab pəṛhī nə ja kər ləṛka uṭh gəya
book read neg. going boy got up

The boy got up being unable to read the book.

37. *ram ne kitab pəṛhī jana caha
Ram ag. book read to go wanted

Ram wanted the book to be read (by him).

38. ram se vəhã jane kī bat bətaī nə gəī
Ram in. there going poss. matter related neg. went

Ram was not able to tell about going there.

39. *həm ne ram ko/se? seb nə bece jate hue paya
we ag. Ram obj./in. apples neg. sold going found

We found Ram not being able to sell apples.

40. *həm ne sīta ko/se? banarəsī saṛī pəhnī gəī huī dekha
we ag. Sita obj./in. Benares saree wearing went saw

We saw Sita been dressed in a Benares saree.

S OBL controls Reflexivization (34), Conjunction Reduction (35), and Equi (38), but does not undergo Conjunction Reduction (36), Equi (37), or Raising (39-40). Thus, it does not share even as many properties as S DAT does with the SI and ST.

5.3.4 Now we will determine the properties of the so-called derived subject of the passive sentence (henceforth, SP):

41. ləṛke$_i$ ko əpni$_i$ jəgəh pər biṭha diya gəya[20]
boy dat. self's place on seated went

The boy$_i$ was seated at his$_i$ place.

42. *əndər bulaya ja kər ləṛke ko pīṭa gəya
inside called going boy obj. beaten went

The boy was hit (after) being called in.

43. *ghər a kər ləṛke ko pīṭa gəya
home coming boy obj. beaten went

The boy was hit (after) coming home.

44. *ləṛka pīṭa jana cahta hɛ
boy beaten to go wants

The boy wants to be hit.

45. ləṛke ko vəhã jane pᵊr pīṭa gᵊya
boy obj. there going on beaten went

The boy was hit (after) going there.

46. *həm ne ləṛke ko pīte jate hue dekha
we ag. boy obj. beaten going saw

We saw the boy being hit.

The so-called derived subject controls Reflexivization and, in some cases, Equi (45), but neither controls nor undergoes any other process in the language.

5.4 In the preceding discussion, two notions have been used crucially, the notion of controller of rules and the notion of accessibility to rules. In terms of these notions, SI and ST are most subject-like in that they control and are accessible to (or undergo) the four syntactic rules discussed in this paper which utilize the notion 'subject' crucially. The others, S DAT, S OBL, and SP, are less subject-like as compared with SI and ST.

The four syntactic rules of Reflexivization, Conjunction Reduction, Equi, and Raising themselves differ in their properties. Notice that Reflexivization and Conjunction Reduction are controlled by the subject only, but that Equi is controlled by the direct and the indirect object as well (Subbarao 1974).[21] Raising utilizes the notion 'subject' crucially in that only the subject of a lower clause can be raised to become the object of the higher clause. Both Equi and Raising are governed rules, whereas Reflexivization and Conjunction Reduction are not. Also, both Equi and Raising are marginal rules in Hindi-Urdu as compared with Reflexivization and Conjunction Reduction; Raising is governed by a small class of verbs, and there are severe constraints on the shape and modality of the lower clause.[22]

The following chart displays the behavioral properties of SI, ST, S DAT, S OBL, and SP in Hindi-Urdu:

47.

Rule	Controller	Accessible
Reflexivization	SI, ST, S DAT, S OBL, SP	---
Equi	SI, ST, S DAT, S OBL, SP	SI, ST, S DAT
Conjunction Reduction	SI, ST, S DAT, S OBL	SI, ST
Raising	SI, ST	SI, ST

On the basis of this, we can set up a hierarchy of subjects in Hindi-Urdu as follows:

48. SI ST $\leq$ S DAT $\leq$ S OBL $\leq$ SP

Notice that neither S OBL nor SP undergoes any rule that crucially affects the subject, although they do control some of the processes which are typically controlled by the subject. If we now determine the semantic and formal properties of these subjects, the picture that emerges is as follows: SI and ST exhibit the widest range of semantic properties, S DAT is semantically almost always Experiencer/Recipient, S OBL is semantically almost always Experiencer/Instrument, and SP is semantically almost always Victim. S DAT and S OBL are always marked (with postpositions), SI and SP are almost always unmarked, ST is obligatorily marked in the perfective, in the majority of cases. SI, ST and SP (when unmarked) almost always control verbal agreement; S DAT and S OBL never do.

6.0 Panjabi and Kashmiri both are similar to Hindi-Urdu. Both have unmarked and marked subjects similar to Hindi-Urdu and in neither can case-marking or verbal agreement be used as a necessary or sufficient criterion for characterizing the notion subject. The following sentences provide evidence for this claim:[23]

49. P. muṇḍa kətab pə́ṛ rià e
boy book read -ing is

K. ləḍkɨ chu kitāb parān
boy is book reading

'The boy is reading the book.'

50. P. muṇḍe ne kətab pə́ṛ lᵊī
boy ag. book read took

K. ləḍkan pər kitāb
boy read book

'The boy read the book.'

51. P. muṇḍe tõ kətab pə́ṛī nᵊ́ī gᵊī
boy by book read not went

K. ləḍkas ayi nɨ kitāb parnɨ
boy by came not book read

'The boy could not read the book.'

52. P. muṇḍe nū mā̃ yad aī
boy dat. mother memory came

K. ləḍkas peyi mā̃ j ts'atas
boy dat. fall mother remember

'The boy remembered his mother.'

We will now discuss the behavioral properties of the SI, ST, S DAT, S OBL, and SP in Panjabi and Kashmiri with respect to Reflexivization, Equi, Conjunction Reduction, and Raising.

6.1 SI, ST, S DAT, S OBL, and SP all control Reflexivization in Panjabi and in Kashmiri as well. Consider:

53. P. muṇḍa$_i$ əpṇe$_i$ kə̀r gia
boy own home went

K. ləḍkɨ$_i$ gav panun$_i$ garɨ
boy went own home

'The boy$_i$ went to his$_i$ house.'

54. P. muṇḍa$_i$ əpṇī$_i$ kətab pə́ṛ rià e
boy own book read -ing is

K. ləḍkɨ$_i$ chu panɨn$_i$ kitāb parān
boy is own book reading

'The boy$_i$ is reading his$_i$ book.'

55. P. muṇḍe$_i$ ne əpṇī$_i$ kətab pə́ṛ ləī
boy ag. own book read take

K. ləḍkan$_i$ pər panɨn'$_i$ kitāb
boy read own book

'The boy$_i$ read his$_i$ book.'

56. P. (ram$_i$ tõ) muṇḍe$_j$ nū əpṇī$_{i/j}$ jəgá te nᵊ́ī biṭhaia gia
Ram by boy obj. own place on not sit (cause) went

K. (ramas$_i$) āv nɨ ləḍkɨ$_j$ panɨni$_{i/j}$ jāyi behnāvnɨ
Ram by come neg. boy own place sit (caus.)

'Ram$_i$ could not seat the boy$_j$ at his$_{i/j}$ place.'

57. P. muṇḍe$_i$ nū əpṇī$_i$ jəgá te biṭha ditta gia
boy obj. own place on sit (caus.) gave went

K. laḍkɨ$_i$ āv behnāvnɨ panɨni$_i$ jāyi
boy come sit (caus.) own place

'The boy$_i$ was seated at his$_i$ place.'

6.2 With respect to Equi, the crucial question to ask is if SI, ST, S DAT, S OBL, and SP all undergo the rule in Panjabi and Kashmiri. Consider the following:

58. P. muṇḍa kàr jaṇa cɔ́da e
boy home to go want Aux

K. ladkɨ čhu garɨ yatshān gatshun
boy is home desire to go

'The boy wants to go home.'

59. P. muṇḍa pə́ṛṇa cɔ́da e
boy to read want Aux

K. laḍkɨ čhu parun yatshān
boy is to read desire

'The boy wants to read.'

60. P. ram ne xət likkhəṇ dī gəll dəssī
Ram ag. letter to write of matter told

K. rāman vən' čiṭh' lēkhnɨc kath
Ram said letter writing of story

'Ram told of writing the letter.'

61. P. ram ne pùkkh lᵊggᵊṇ dī gᵊll dᵊssī
Ram ag. hunger to strike of matter told

K. rāman vən' bɔčhi lagnɨc kath
Ram siad hunger strike of story

'Ram told of being hungry.'

62. P. *ram ne kətab pə́ṛī jaṇa cə́ia
Ram ag. book read(past) to go wanted

K. *rāman yᵊtsh kitāb parnɨ yin'
Ram desire book read came

'Ram wanted the book to be read (by him).'

63. P. *muṇḍa kuṭṭia jana cɔ̃da e
boy hit(past) to go want Aux

K. *ləḍkɨ čhu yatshān marnɨ yun
boy is desiring death come

'The boy wants death to come (to him).'

6.3 Panjabi and Kashmiri exhibit properties similar to Hindi-Urdu with respect to Conjunction Reduction. Consider the following:

64. P. draxt de thəlie bɛ ke muṇḍa ũg rià e
tree of under sit having boy doze -ing is

K. kulis tal bihith čhu ləḍkɨ vadān
tree under sitting is boy crying

'The boy is $\begin{Bmatrix}\text{dozing}\\ \text{crying}\end{Bmatrix}$ sitting under the tree.'

65. P. draxt de thəlle bɛ ke muṇḍa katab pəṛ ria e
tree of under sit having boy book read -ing is

K. kulis tal bihith čhu ləḍkɨ kitāb parān
tree under sitting is boy book reading

'The boy is reading a book sitting under the tree.'

66. P. kətab pə́ṛ ke muṇḍa so jáega
book read having boy sleep will go

K. kitāb pərith šõngi ləḍkɨ
book (after) reading sleep boy

'The boy will go to sleep (after) reading the book.'

67. P. kətab pə́ṛ ke muṇḍa xət líkhega
book read having boy letter will write

K. kitāb pərith lēkhi ləḍkɨ kath
book having read write boy story

or ləḍkɨ lēkhi kath kitab pərith
boy write story book having read

'The boy will write the $\begin{Bmatrix}\text{letter}\\ \text{story}\end{Bmatrix}$ (after) reading the book.'

68. P. kàr a ke móṇ khaṇa kháega
home come having Mohan food will eat

K. mohnɨ kheyi batɨ garɨ yith
Mohan eat food home come

or garɨ yith kheyi mohnɨ batɨ
home come eat Mohan food

'Mohan ate (after) coming home.'

69. P. xət pəṛ ke ò xuš̌ ho gia
letter read having he happy be went

K. čiṭh' pərith gav su khɔš̌
letter having read went he happy

or su gav čiṭh pərith khɔš̌
he went letter having read happy

'He became happy (after) reading the letter.'

70. P. səkūl da mədan vekh ke muṇḍe nū apṇe dost yad ae
school of ground see having boy dat. own friends memory came

K. səkūluk mə̄dan vučhith peyi ləḍkas dost yād
school ground having seen fell boy friends remember

'The boy remembered his friends when he saw the school grounds.'

71. P. *pùkkh ləgg ke muṇḍe ne khaṇa kháda
hunger strike having boy ag. food ate

K. *b čhi ləgith kh'av ləḍkan batɨ
hunger having felt ate boy food

'Being hungry, the boy ate a meal.'

72. P. *dost yad a ke muṇḍa udas ho gia
friend memory come having boy sad become went

K. *dost ts'atas p'ath gav ləḍkɨ gamgīn
friends remember having fallen went boy sad

'Having remembered his friends, the boy became sad.'

73. P. ɛtthe bɛ ke muṇḍe to kətab nə́ī pə́ṛī jáegī
here sit having boy by book not read will go

K. yet'ath bihith yinɨ ləḍkas kitāb pər(ɨ)nɨ
here sitting come not boy to book read

'The boy will not be able to read the book sitting here.'

74. P. *kətab pə́ṛī nə ja ke muṇḍa uṭh gia
book read not go having boy get up went

K. *kitāb pərnɨ na yinɨ kin' voth ləḍkɨ
book read neg. come got up boy

'The boy got up being unable to read the book.'

75. P. *maria ja ke muṇḍa roia
beat go having boy cried

K. *mar kh'ath h'ot ləḍkan vadun
spanking eaten bought boy crying

'Having been hit, the boy cried.'

76. P. *bulaia ja ke muṇḍa maria gia
call go having boy beat went

K. *bulə̄vith āv ləḍkas mār dinɨ
having called came boy dat. spanking give

'Having been called, the boy was hit.'

Notice that just as in Hindi-Urdu, S DAT and S OBL do not undergo Conjunction Reduction, and SP neither controls nor undergoes the rule.

6.4 As in Hindi-Urdu, in Panjabi and Kashmiri, too, SI and ST undergo Raising whereas S DAT, S OBL, and SP do not:

77. P. ò ne muṇḍe nū jande hoe vekhia
he ag. boy obj. going be (past) saw

K. təm' vučh ləḍkɨ gatshān
he saw boy going

'He saw the boy going.'

78. P. əsī muṇḍia nū ᵊxbar vecde hoe vekhia
we boys obj. newspaper selling be (past) saw

K. asi vuch' ləḍkɨ akhbār kɨnān
we saw boys newspaper sell

'We saw the boys selling the newspapers.'

79. P. *mɛ̃ ram nū̃ pùkkh ləggde hoe vekhia
I Ram obj. hunger striking be(past) saw

K. *me vuch rāmas bočhi lagān
I saw Ram hunger sticking

'I saw Ram being hungry.'

80. P. *mɛ̃ ram nū̃ piyas ləgge hoe vekhia
I Ram obj. thirst strike be (past) saw

K. *me vučh rāmɨ treš logmut
I saw Ram thirst sticking

'I found Ram being thirsty.'

81. P. *əsī̃ ram nū sev na vece jande hoe vekhia
we Ram obj. apple not sold going be(past) saw

K. *asi vučh ramɨ tsū̃ṭh' na kɨnɨnɨ yivān
we saw Ram apples not selling come

'We saw Ram not being able to sell apples.'

82. P. *əsī̃ sīta nū sarī paī gəī hoī vekhia
we Sita obj. saree wore went be (past) saw

K. *asi vučh sītā dūt' kərmɨts
we saw Sita saree wrapped

'We saw Sita been dressed in a saree.'

83. P. *əsī̃ katabā̃ nū vecia janda vekhia
we books obj. sold going saw

K. *as' vučh kitābɨ yivān kɨnɨnɨ
we saw books coming sell

'We saw the books being sold.'

6.5 Panjabi and Kashmiri, then, are similar to Hindi-Urdu in that the various subjects in these two languages have behavioral properties identical to those of Hindi-Urdu subjects. They, of course, differ from Hindi-Urdu in superficial case-marking, and in the case of Kashmiri, in word order. The hierarchy of subjects proposed in (48) for Hindi-Urdu is thus valid for all the three languages under discussion here.

7.0 The theoretical implications of our study are clear. By now it is well-understood that lexical categories such as noun, verb, etc., are not discrete; some nouns are more noun-like than others.[24] What our study reveals is that functional, or relational, categories such as 'subject' are not discrete, either; some subjects are more subject-like than others. It would be interesting to extend this study to determine if other languages of South Asia (and elsewhere) have a similar hierarchy of subjects. Additionally, it would be interesting to attempt to answer the questions raised in 1.0 about the theoretical basis of relational grammar and the nature of processes such as case-assignment, verbal agreement, and passive in light of the evidence presented in this study.[25]

NOTES

[1] As Hindi and Urdu share a basic grammar in spite of marked lexical differences in certain registers, we feel that it is appropriate to hyphenate the two and treat Hindi-Urdu as one language for the purposes of this study.

[2] Vasu 1891: 1.4.54: svatantraḥ karta. Whatever the speaker chooses as the independent and absolute source of action is called karta or agent.

[3] The terms used for these are kartā and uddešya, respectively.

[4] See Y. Kachru 1970a for a discussion of this point.

[5] For instance, the usurpation rules in Johnson 1974 do this. Passive is a clause-internal usurpation rule which moves the original direct object up the Accessibility Hierarchy to subject position.

[6] The following sentences illustrate this:

(i) məkan bik gəya
house sell went

'The house got sold.' (Patient?)

(ii) ram əccha ho gəya
Ram good be went

'Ram became well or recovered.' (Victim?)

(iii) sīta ko kitab mil gəī
Sita dat. book meet went

'Sita got the book.' (Recipient)

(iv) usko is bat se bəṛī xusī huī
he dat. this matter from much happiness happened

'He became very happy at this.' (Experiencer)

(v) thoṛi der mẽ sṭešən a gəya
little wait in station come went

'In a little while, the station came', i.e. we got to the station.' (Range)

In (i)-(v) məkan, ram, sīta ko, usko, and sṭešən are not actors/agents, but still function as the subjects of these sentences.

[7] The traditional grammars refer to these as subjectival, objectival, and impersonal constructions, respectively (*kartari prayog*, *karmaṇi prayog*, and *bhāve prayog* in Guru 1952).

[8] The following sentences illustrate the agreement pattern:

(vi) raj kitab pəṛh rəha hɛ
Raj(m.) book(f.) read -ing is (3rd masc. sg.)

'Raj is reading a book.'

(vii) ləṛke kitab pəṛh rəhe hɛ̃
boys book read -ing are (3rd masc. pl.)

'The boys are reading a book.'

(viii) raj ne kitab pəṛhT
Raj(m.)ag. book(f.) read (3rd fem. sg.)

'Raj read thd book.'

(ix) raj ne kitab ko pəṛh liya
Raj ag. book obj. read took (3rd masc. sg.)

'Raj read the book.'

[9] This does not mean that there are no other postpositions, except *ne*, *ko*, and *se*, which cooccur with the subject. Consider the following:

(x) ram mẽ bəṛa utsah hɛ
Ram in much enthusiasm is

'Ram is very enthusiastic.'

(xi) ram ke do beṭe hue
Ram poss. two sons happened

'Ram had two sons born to him.'

There is no significant difference between NP *se* as in (3) and NP *mẽ* or NP *ke* as in (x) and (xi) as far as the behavioral properties are concerned, and hence all these are subsumed under our category 'oblique subject' (abbreviated S OBL).

[10] Word order is not a reliable criterion, either, as for stylistic effects, it is possible to move subject, direct object, and other functional categories around, e.g.

(xii) pəṛh lT mɛ̃ ne vəh kitab
read took I ag. that book

'I read that book.'

(xiii) a gəya vəh bhag kər
came went he running

'He came running.'

(xiv) kitab ləta le aī
book Lata bring came

'Lata brought the book.'

[11] Equi and Raising are discussed in detail in Subbarao 1974. For a detailed discussion of Reflexivization in Hindi-Urdu, see Y. Kachru and Bhatia 1975. Conjunction Reduction has been discussed briefly in Y. Kachru 1965 and 1966 under the topic of derived adverbials, as generally the V-kər phrases that result from the process function as time or manner adverbials in Hindi-Urdu.

[12] Cf. footnote 9.

[13] Cf. footnote 5.

[14] The convention with regard to the subscript notation is as follows: x_i and y_i are stipulated coreferents, whereas x_i and y_j are not.

[15] Sentence (23) presumably comes from the following source:

(xv) ram ne $_{NP}[_S$ [ram ne pətr likha $]_S$ bat $]_{NP}$ bataī
Ram ag. Ram ag. letter wrote matter related

After ka-na and Equi apply to the lower S, a late rule inserts ka between the infinitive and the lexical head noun (see Subbarao 1974 for a discussion of such sentences).

[16] Sentence (24) presumably comes from the following source:

(xvi) mɛ̃ ne [sīta ne koṭ pəhna tha] dekha
I ag. Sita ag. coat worn had saw

[17] Cf. footnote 15.

[18] Cf. footnote 15.

[19] Periphrastic passives with agents have a capabilitive meaning in most South Asian languages. This fact has been mentioned in several recent works. Cf. Y. Kachru 1970b.

[20] In fact, sentence (41) is ambiguous. The reflexive pronominal may refer either to the boy or to the deleted agent. Here we are

concerned with the reading in which the boy and the reflexive pronominal form are in an antecedent-pronoun relationship.

[21] Subbarao 1974 discusses cases such as the following where Equi is controlled by DO and IO respectively:

(xvii) həm ne rəma ko sinema dekhne ke liye məna liya
we ag. Rama obj. movie to see for convince took

'We persuaded Rama to come to the movies.'

(xviii) raj ne šila se ghər jane ko kəha
Raj ag. Sheila from home to go to said

'Raj told Sheila to go home.'

Note that mənana in Hindi-Urdu does not share all the properties of the English verb 'to persuade'.

[22] For instance, only a few transitive verbs, such as səməjhna 'to consider/think', dekhna 'to see', pana 'to find', and manna 'to consider' govern Raising. dekhna and pana allow the raising of subjects of both perfective and non-perfective sentences. manna, however, allows only for the raising of the subject of a copula sentence with a nominal or an adjectival complement.

[23] In the following examples, 'P.' and 'K.' preceding the sentences stand respectively for Panjabi and Kashmiri. Note the word order of the Kashmiri sentences. We do not discuss it in detail here, as it is not relevant to our discussion.

[24] The notions of squish (Ross 1972, 1973a,b) and fuzzy grammar (Lakoff 1972) argue in favor of the relativity of grammatical concepts.

[25] As the title of this paper indicates, this should be considered as some 'notes' on this topic. It is not exhaustive, nor does it present all the aspects of the data discussed here. The authors are grateful to Rajeshwari Pandharipande for referring us to the Sanskrit sources on this topic.

Note that the following convention has been followed in the transcription. In the case of Hindi-Ūrdu, ə stands for the inherent short vowel of the Nagari syllabary, V̄ stands for a long vowel, C̣ for retroflex consonants, ṛ and ṛh for the retroflex flaps, and Ṽ for nasalized vowels. In the case of Kashmiri, C' stands for palatalized consonants, and ɨ stands for the high central vowel. In the Panjabi examples, the low and high tones are marked, the mid-tone unmarked.

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ABBREVIATIONS IN THE REFERENCES

CLS--Papers from the __th Regional Meeting of the Chicago Linguistic Society.

Lg.--Language.

LSA--Meeting of the Linguistic Society of America.

SLS--Studies in the Linguistic Sciences, Department of Linguistics, University of Illinois, Urbana, Illinois.

The Notion of Subject and Agent in Hindi*

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Although the development of transformational theory has resulted in very insightful analyses of problems in syntax and semantics, it has also brought in concepts of doubtful value. For instance, we may recall the following remarks of Chomsky (1972, p. 118):

> 1. The basic property of transformations is that they map phrase markers into phrase markers. Each transformation applies to a phrase marker on the basis of the formal configurations expressed in it, and quite independently of the meanings or grammatical relations expressed by these formal configurations.[1]
>
> (emphasis added, AKS)

If we look at the sentences in (2), (4) and (6), we can conclude that the generalization that any NP_1 V NP_2 sequence could be passivized is incorrect.

1a. The Rev. Murphy married Nick and Leela.
b. Nick and Leela were married by the Rev. Murphy.
2a. Nick married Leela.
b. *Leela was married by Nick.
3a. No one equals Boris in the game of chess.
b. Boris is equalled by no one in the game of chess.
4a. Two and two equal four.
b. *Four is equalled by two and two.
5a. Roger Bannister first ran a mile in four minutes.
b. A mile was first run in four minutes by Roger Bannister.

6a. I ran a mile to work.

b. *A mile was run to work by me.

Attempts have been made in the past to offer a patchwork explanation (such as: verbs like marry and equal have passive form in one meaning but not in another, cf. Palmer, 1966, p. 66) but the generalization that passivization depends on whether NP_2 bears a patient relation to the predicate has not been emphasized within the transformational framework.[2] This has led linguists like Postal (1974, 1975), Postal and Perlmutter (forthcoming), Johnson (1974a, b) and Keenan (1974, 1975, 1976) to look for a different conceptual framework - namely, one which views the grammar of the clause as based on grammatical relations such as subject of, object of, rather than from the set including sister of and precede as in transformational grammar. Postal (1974) argues that transformational grammar, at least of the lexicalist school cannot explain why (7a) and (8a) do not have acceptable passive counterparts:

7a. It disgusts me the things he is doing.

b. *I am disgusted by it the things he is doing.

8a. It worries me that he is dating a gorilla.

b. *I am worried by it that he is dating a gorilla.

Postal thinks that a principle [such as (11)] would block the application of passive to the output of NP Extra [as in (7b)] and Extraposition [as in (8b)].[3]

11 A derived subject cannot be the victim NP displaced by a rule like passive.
(Postal 1974, p. 23)

Postal (1975) argues convincingly that a proper description of quantifier floating in English involves references to the notion of (cyclic) subject. A grammatical theory, therefore, must have nonbase rules which are sensitive to grammatical relations.[4]

There are three basic points that seem to motivate relational grammarians to emphasize the notion of 'subject':

III a) It makes the accessibility hierarchy (as defined by Keenan and Comrie, 1972) work.

b) It is based on the functional succession principle (as defined by Postal and Perlmutter, 1974).

c) It accounts for the advancement continuity principle (as discussed by David Johnson, 1974a, b; Trithart 1975; Keenan, 1975).

According to Keenan and Comrie (1972), the Accessibility Hierarchy (AH) works in the following way:

IV. Subject $\geq$ Direct Object $\geq$ Indirect Object $\geq$ Oblique NP $\geq$ Poss-NP $\geq$ Object Complement Particle (where $\geq$ means "greater than or equal to in accessibility"). Thus some languages have relative clause formation strategies which apply only to subjects; other languages have strategies which apply to subjects and direct objectives, others have ones which apply only to the top three positions on the AH, etc.

According to the Functional Succession Principle, if NP_i ascends out of NP_J, then it assumes the grammatical relations previously held by NP_J. As discussed above (i.e. Rule II), the principle helps us understand why an active sentence with a derived subject NP cannot be passivized or extraposed. The advancement continuity principle (Johnson 1974a, b) suggests that if a language can promote NPs low on the Accessibility Hierarchy to the subject position, it can promote all intermediate positions to subject position. This, in essence, follows naturally from the

Subject Accessibility Hierarchy principle.

Applying these principles to the passive, Keenan (1975) make the following generalizations:

V i) The demoted subject either does not appear at all in the passive, or else it appears optionally in an oblique case.

ii) The direct object promoted (as the subject) by the passive acquires the coding properties of subjects, i.e. they take on the characteristic position, case marking, and verb agreements of a basic subject.

iii) A passive sentence becomes intransitive.

When we come to generalization (ii), Hindi seems to offer strong counterexamples to these claims. First of all, it is not necessarily the case that passivization promotes the object of a sentence to the status of the subject. For instance, although both (9b) and (9c) are passives of (9a), in (9b) the object marker postposition -ko is not deleted, nor does the verb agree with it; i.e. lərkī ('the girl') becomes the subject of the sentence only in (9c):

9a. šiksəkne ləṛkīko klasse nikal diya.
the teacher the girl from the class drove out
[obj-ko]
'The teacher drove the girl out of the class.'

b. ləṛkīko klasse nikal diya gəya.
the girl from the class was driven out
[ɔbj-ko]
'The girl was driven out of the class.'

c. ləṛkī klasse nikal dī gəyī
'The girl was driven out of the class.'

It is only (9c) that goes by the first two generalizations made by Keenan. Even there, Keenan's third claim (i.e. the passive sentence becomes intransitive) is wrong, for (9c) is not the exact equivalent of

(9d), which is a real intransitive sentence.[5]

9d. lərkT klasse {nikəl gəyT
                  nikəlT}

'The girl went out of the class.'

Like a true intransitive (9d) does not presuppose anything whereas (9c) presupposes something like (9a), i.e. someone turned the girl out of the class. In other words, the passive verb in (9c) has two arguments (one of which is deleted from the surface subject). None can be driven out unless there is someone or something to drive him out. Keenan (1975, 312-313) claims that a subject 'exists independently of the action or property expressed by the predict'. Thus in (10a), the existence of the poem is not independent of the act of the writing whereas the existence of the student is:

10a. The student wrote the poem.

b. The poem was written.

According to Keenan's arguments, then, 'the poem' in (10b) does not have any independent existence; it necessarily reminds us of someone who wrote it. By the same logic, (9c) reminds us of someone who drove the girl out of the class.[6]

Postal and Perlmutter (1974, forthcoming) emphasize that the main verb of a sentence agrees with its subject. Theoretically, there could be two ways of looking at this issue:

VI a) If an NP is a subject of a sentence, it agrees with the main verb of that sentence.

b) If the main verb agrees with an NP, then that NP is the subject of the sentence.

Both these generalizations are, however, incorrect insofar as Hindi is concerned. If we accept (a), we will have to say that 'Ram' is not the subject of (II):

IIa. Ramne kitab xərTdT.
Ram a book bought
'Ram bought a book.'

The verb *xərTdT* in (IIa) agrees with the object *kitab*. Thus, if (b) is correct, *kitab* is the subject of the sentence. That, however, is counterintuitive. If we take up (a), we may make a false claim that since no NP is in agreement with the verb in (IIc), the sentence has no subject. That, again, will be counterintuitive because we know that 'Ram' is the agent of the sentence and even according to Keenan (1976, p. 321) 'basic subjects normally express the agent of the action if there is one.' In Hindi, the verb agrees with the unmarked object (i.e., object without a post position) if it is transitive and is in the perfective.[8] Thus, parallel to (IIa) in which the verb agrees with the object we have (IIb) but in (IIc) the verb does not agree either with the subject or with the object, because the direct object is also marked for its case:

IIb. Ramne kitab xərTdT $\left\{\begin{array}{l}\text{hɛ}\\ \text{thT}\\ \text{hogT}\end{array}\right\}$
'Ram $\left\{\begin{array}{l}\text{has}\\ \text{had}\\ \text{might have}\end{array}\right\}$ bought the book.'

c. Ramne uskitab*ko* xərTd liya.
Ram that book bought
'Ram bought that book.'

In all other cases, the verb agrees with the subject:

IId. *Ram* kitab xərTd *rəha hɛ*
mas. mas.
'Ram is buying a book.'

e. Sīta kitab xərid rəhī hɛ
fem. fem.
'Sita is buying a book.'

In view of (11a, b, c) we suggest a weaker form of (VI)

VII If there is an agreement between an NP and the verb, then there is agreement with subject.

(VII) leaves the door open for agreement with object but it is such a generalization that it cannot be held as a necessary condition for subjecthood. (cf. Keenan, 1976, p. 316).[9]

If we reject Keenan in favor of Postal and Perlmutter, we fail to differentiate between the grammatical relation of kitab 'the book' in (11a; b) and that in (12a,b):

12a. Kitab xərīdī gəyī
'The book was bought'

b. Kitab xərīdī gəyī {hɛ / thi / hogi}
'The book {has / had / might have} been bought.'

We may recall that (12a) and (12b) are passives of (11a) and (11b) respectively; i.e., kitab, the object in (11a, b) has become a derived subject in (12a, b). The problem becomes even more confusing if we consider (13a):

13a. Leelane Reetako kitab dī.
Leela Reeta book gave
'Leela gave a book to Reeta.'

If we go by the characteristics of subjects as given by Postal and Perlmutter, kitab 'the book' is the subject of (13a). If we apply passivization, we should get (13b), but (13b) is ungrammatical:

13b. *Reeta kitab dī gəyī.
Reeta book was given
'Reeta was given a book.'

Since Leela ne is an oblique case[10] in the eyes of American grammarians working on Hindi, (13a) should not be a possible sentence of Hindi if (13b) is not. In other words if an NP in an oblique case is available for subjectivization, the indirect object, which "is greater than or equal to" the oblique case, should also be available for subjectivization.

Moreover, if we accept, for the sake of argument, that kitab is the subject of (13a), then (13c) which is a well formed sentence, should not be considered well formed because the passivization rule in Hindi deletes the subject of the active sentence if an abilitative meaning is not intended:

13c. kitab Reetako dT gəyT.
'The book was given to Reeta.'

The absurd problems posed by (13) can be completely ruled out, if we abandon the so-called 'Subject Accessibility Hierarchy' principle and find an alternative proposal.

Of the three motivations for having notions like 'subject of', the third (i.e., Advancement Continuity Principle), we have suggested, follows from the first (i.e., Accessibility Hierarchy Principle). Kuno (1976, p. 427) suspects that the hierarchy for relativization is, in fact, "a hierarchy for accessibility to thematic interpretations of noun phrases." He thinks that subject is easiest to relativize because it is easiest to interpret the noun phrase in the subject position as the theme of the sentence. Following Li and Thompson (1976, p.465), we argue that topic, and not subject, is the most easily available NP for relativization.[11] Sinha (1974) has shown why an adequate syntactic analysis should include an account of topic-comment relation. Relational grammar, we believe, can hardly afford to ignore this relationship. And if it includes that relationship in its domain, several features that Keenan (1976) treats as marked features of subjecthood will be considered as more marked features of topic. For instance, if a sentence has a topic as well as a subject, (i.e., if they are not identical), the topic, we presume, is more independent than the subject in terms of both absolute and presupposed references.[12]

Because of the limitations of relational grammar discussed above, we suggest an alternative analysis of the relation of the verb with NPs in terms of more basic notions like 'agent', 'patient', etc. The notion of patient not only explains why a derived subject cannot be the victim NP displaced by a rule like passive, it also suggests why sentences like (2a), (4a) and (6a) cannot be passivized (see footnote 2 for further discussion).

One obvious advantage which such a case grammar has over relational grammar is that it explains grammatical relations - i.e. relations between an atomic predicate and a definite number of arguments in a proposition - in a more fundamental way than relational grammar does; it emphasizes the point that the nature of this relation is such that it is the predicate which selects the appropriate number and appropriate kind of arguments. For example, it lists the verb break (whether in Hindi or in English) as having a direct object (DO), an agentive (A), and an instrument (I) as arguments. It may not only explain the semantic relation between (14a, b, c, d and e) but also make clear why (14f and g) are bad:

14a. John broke the window with a hammer.

b. John broke the window.

c. A hammer broke the window.

d. The window was broken by John with a hammer.

e. The window broke.

f. *John and a hammer broke the window.

g. * The window was broken once by John and once by a hammer.[13]

We may notice that notions like 'agentive' and 'instrumental', which are so basic to Hindi and several other languages, are lumped up together as 'subject' in relational grammar, and that leads us to a very misleading position. For instance, in Hindi, the subject of an active sentence must be deleted when passivization is applied, if the intended meaning is non-abilitative. However, the same NP is retained, without any change in meaning, if it is embedded in a higher sentence with a real (as against abstract) causative verb. For instance, the retention of naukər [the subject of (15a)] changes the meaning of (15c) but not of (16c):

15a. naukərne ghər saf kiya.
the servant house cleaned
'The servant cleaned the house.'

b. ghər saf kiya gəya.
'The house was cleaned.'

c. naukərse ghər saf kiya gəya.
'The house could be cleaned by the servant.'

16a. Ramne naukərse ghər saf kəraya.
Ram by the servant house cleaned.
'Ram got the house cleaned by the servant.'

b. $[_{S_1}$Ramne $[_{S_2}$naukərne ghər saf kiya$_{S_1}$] kəraya$_{S_2}$].
Ram the servant cleaned the house got it done
'Ram got the house cleaned by the servant.'

c. Naukərse ghər saf kəraya gəya.
'The house got cleaned by the servant.'

Notice that in (16c) the presence of the NP naukərse 'by the servant' does not make the passive abilitative, because it is 'instrumental'. In short, if we want to capture a broader generalization, we should try to differentiate between the role the NP naukar 'servant' is playing in (15) and (16); in (15) it is the agent, in (16) it is instrumental (intermediary).[14] It is these relations which are deeper grammatical relations, and not concepts like 'subject', which, as we have already seen, are based on vague linguistic generalizations or else are highly language specific.

Keenan (1976) makes three specific syntactic claims about the role of the subject:

VIII i. Basic subjects are indispensible.
ii. They control reflexives.
iii. They control coreferential deletion and pronominalization.

Kachru (in this volume) stresses the last two points and claims that a grammar which abandons the notion of subject cannot adequately account for reflexivization and equi-NP deletion. Insofaras the indispensibility of the subject is concerned, we claim that the problem of a sentence being incomplete without a subject is acute only in a sentential grammar. In natural languages in which sentences are interlinked, such a problem does not arise. In (17b), for example, the subject has been deleted, but we have no difficulty in comprehending it because (17a) supplies the topic on which (17b) is the comment (see Sinha, 1974 for our concept of topic-comment relation):

17a. 'The Nawab wants to give a party for us.'

b. 'Very kind of him.'

c. 'Yes, it is rather.'[16]

We claim that (17b) is the deleted form of (17b'):

17b! [That the Nawab wants to give a party for us]
It
is very kind of him.

Keenan (1976, p. 318) claims that in metaphoric idioms, basic subjects are 'the most reluctant of the major NPs to abandon their reference.' (18a) and (19a) are counter-examples to such a claim:

18a.	nac	nə	jane,	ãgən	təṛh.
	dance	not	know	yard	crooked.

b.	jo	nac	nə	jane	uskeliye	ãgən
	(he) who	dance	not	knows	for him	yard

teṛh	hɛ
crooked	is

'For one who does not know how to dance the floor is crooked.'
(=A bad carpenter quarrels with his tools).

19a.	əndhe	ke age	roye,	əpna	dida	khoye
	blind	in front of	cry	own (reflexive)	sight	lose

b.	jo	əndhe ke	age	rota	hɛ	wəh	əpna
	(he) who	blind	in front of	weeps		he	his

dida	kota hɛ
sight	loses

'One who weeps in front of a blind weakens his own sight.'
(=Do not cry in face of an unsympathetic audience).

Both in (18a) and (19a) the basic referents have been deleted. Incidentally, the use of reflexive possessive apna 'x's own' causes a problem, for there is no overt antecedent of apna in the simplex sentence 'əpna dida khoye'. 'loses one's eyesight'.

As Cohen (1973) has shown the reflexive possessive *apna* in Hindi may refer to an NP other than the subject NP. For example, in (20a) *apna* is ambiguous depending on whether it is derived from (20b) or (20c):

20a. Ramne naukərse əpna ghər saf kərwaya
'Ram made the servant clean his house.'

b. [Ramne Naukərne *apna* ghər saf kiya] kərwaya]
S_1 S_2 S_2 S_1
'Ram caused it [The servant$_i$ cleaned his$_i$ house].'

c. [Ramne [Naukərne *uska* ghər saf kiya kərwaya
S_1 S_2

'Ram; caused it [The servant cleaned his; house].'

In short, *apna* may refer to the agent of the basic sentence [as in (20b)] or of the causative sentence [as in (20c)] . The notion of subject is not a bit more enlightening than the notion of agent in resolving this ambiguity; in both cases we have to depend on referential indices.

Kachru *et al* (in this volume) claim that the notion of subjects is needed to explain Equi-NP deletion adequately. They claim that (21b) is possible because the matrix sentence has a coreferential subject.[18]

21a. [ləṛka peṛ ke nīce bɛtha hɛ ɔr ləṛka
the boy tree under is sitting and the boy

kitab paṛh rəha hɛ
book is reading

[The boy is sitting under the tree] and [the boy is reading a book]

b. Per ke nīce bɛthkər ləṛke kitab
Tree under sitting the boy the book

pəṛh rəha hɛ
is reading

'Sitting under the tree, the boy is reading a book.'

They claim that (22a) is bad because there are no coreferential NPs.

22a. *bulaya jakər lərkeko pīṭa gəya
'Having been called, the boy was beaten up.'

a′. [ləṛkeko bulaya gəya] ɔr lərkeko pīṭa gəya
The boy was called and the boy was beaten up.

b. ləṛkeko bulakər pīṭa gəya
'The boy was called and beaten up.'

b′. [usne ləṛkeko bulaya] ɔr [ləṛkeko pīṭa gəya]
he the boy called and the boy was beaten up.
(He) called the boy and the boy was beaten up.

If (22a) and (22b) are derived from (22a′) and (22b′) respectively, Kachru *et al* seem to be wrong in their generalization. (22a) is a bad sentence in spite of the coreferential *larkeko* 'to the boy' in both the clauses and (22b) is good in spite of there being no coreferential NPs.

Kachru (personal communication) claim that the notion of agent is not adequate to explain what is deleted in (23b):

23a. [wəh bīmar hogəya] ɔr [wəh ghər cəla gəya]
he sick became and he home went
'He got sick and went home.'

b. bīmar hokər wəh ghər cəla gəya
sick becoming he home went
'He got sick and went home.'

As *wəh* 'he' is not the agent of the first clause in (23a) but is the agent of the second clause, the first 'he' is not coreferential to the second, she argues. Well, if the notion of agent causes a problem in (23) so does the notion of subject in (22b). The solution, we think, lies in exploring the nature of -*kər* conjoining more exhaustively. We do have an explanation for the grammaticality of (23a) in terms of the relation between sentences with related causative, in choative and stative verbs which we will shortly discuss.

Keenan (1974) claims that grammatical relations cannot be expressed in terms of 'agency' because the concept of agent does not seem to be operating in stative sentences such as (24) and inchoatives such as (25):

24. John is rich.

25. John became a doctor.

This, however, depends on how one treats (24) and (25). In our view, (24) is an intransitive sentence with 'rich' as the predicate and (25) is an inchoative sentence with an embedded intransitive [as in (25′)]:

25′. [Become [Doctor, John]

The question of agency is primarily concerned with that which causes to bring about an action and is relatively independent of other arguments in bringing about that action. (And we wish to emphasize the second point -- i.e. the relative independence of the agent -- in order to keep it separate from the NPs with other case roles because, in a strict sense, every case is kriya jənək, (something that helps to bring about an action.). Notice that such an approach will automatically rule out the labeling of the first NP of (26a) as an agent (or, for that matter, as a 'subject' as some of us have used it here), and yet a sentence like (26b) will remind us that it entails (26a), i.e. in a given situation if (26b) is true, (26a) is also true.

26a.	mujhe	ye	kitab	pəsənd	hɛ
	to me	this	book	like	

'I like this book.'

b. mɛ̃ is kitab ko pəsənd kərta hũ
I to this book like
'I like this book.'

It is because of this entailment relation that (27a) and (27b) are good sentences but (27c) is odd:

27a. yõ mɛ̃ ɛsī kitabẽ pəsənd nəhī kərta, lekin
mujhe ye kitab pəsənd hɛ.
'Usually I do not like such books but I like
this book.'

b. mɛ̃ ɛsī kitabẽ pəsənd kərta hũ ər mujheye kitab pəsənd hɛ.
'I like such books and I like this book.'

c. mɛ̃ ɛsī kitabẽ pəsənd kərta hũ lekin mujhe ye kitab
pəsənd hɛ.
'I like such books but I like this book.'

For the same reason, if (28a) is true then (28b) is also true; and just like (27c), (28c) is not a contradiction;

28a. kabhi-nə-kəbhi ap mujhe yad kərẽge.
'$\left\{\begin{array}{l}\text{Sooner or later}\\ \text{Someday or other}\end{array}\right\}$ you will remember me.'
(conscious effort)

b. kəbhi-nə-kəbhi apko meri yad ayegī
'Someday or other you will $\left\{\begin{array}{l}\text{remember me}\\ \text{be reminded of me}\end{array}\right\}$.'

c. ap yad kərẽ ya nə kərẽ, kəbhi-ne-kəbhi apko merī
yad ayegī.
'Whether you try to remember me or not, someday
or other you will remember me.'

We may recall that (25) entails 'John is a doctor' and if we have a sentence like 'John's father made him a doctor', it would entail (25).[20]

The point we want to emphasize is the causative element which the agent has; which incidentally includes volitional as well as non-volitional causation. If we overemphasize the volitional aspect, we will have trouble understanding the nature of the first NP in (29) or (30):

29. bhukəmpne sɛkərõ məkan bərbad kər diye.
 'The earthquake destroyed hundreds of houses.'

30. Is barhneto həmẽ bərbad hī kər diya hɛ.
 'This flood has ruined us (completely).'

Obviously, 'the earthquake' in (29) or 'the flood' in (30) is not an instrument --at least for an atheist -- it is an agent, and our concept of agent should be wide enough to enable us to recognize it as such. At the same time, it should be precise enough to rule out all the spurious elements we have become used to labeling as 'subjects' or even as 'agents' (such as 'dative' subjects, dummy subjects, etc.).

Bruce Pray and McAlphin (in this volume) and Masica (1976) have talked about dative subjects. If a grammatical term has some functional value, we wonder what 'dative subject' stands for. Masica (1976) calls it "subjective experience' described 'from an external point of view' (p. 160). If that were true, they could not be entailed by active (abstract causative) expressions, but we have seen that they are. The contrast is between 'active' and 'stative' expression rather than 'internal' and 'external' experience. They involve emotive verbs (verbs of like/dislike, happiness/unhappiness, dreaming, loving, remembering, pity, doubt, suffering, and expressions of physical (e.g. expressing hunger, thirst, pain, sleepiness) external or moral compulsion (e.g. expressed with auxiliaries like cahiye 'should', pəṛna 'have to' and hona in the sense of 'have to').[21]

In all these cases, the so called dative subject is the experiencer, rather than the actor and should be treated as 'patient'. Even if one believes in relational grammar and feels shy of using notions like 'agent' and 'patient', one cannot justify calling mujhe 'to me' a subject in (31) or (32) for, (if we play their game) the verbs agree with sərdī 'cold' and buxar 'fever' respectively:

31. mujhe sərdī ləgī hɛ̃
fem. fem.
To me cold is felt/gotten
'I have got a cold.'

32. mujhu buxar ləga hɛ̃
mas. mas.
To me fever is gotten.
'I have got a fever.'

Fillmore (1968) assumes that there are subjects in the surface structures of many languages but suggests that they should be all interpreted as external manifestations of various deep structure cases. Martinet (1972a), who is a functionalist, shares Fillmore's reservations regarding the universality of subject but he sticks to the criterion of 'non-omissibility', which he (1972b) admits is of doubtful significance in transformational grammar. From what we have discussed above, it seems obvious that nothing is gained by retaining the term 'subject'[23] and that terms like 'agent', 'patient', 'beneficiary', which express specific case roles, should be used. We are aware of the problem such an approach may face[24] (e.g. English verbs of converse relation such as 'buy and sell' are semantically identical in terms of roles of different arguments but differ in the process which arrange their elements into syntactic configurations but the topic-comment relation, to which we have alluded several times in this paper, can help us solve some of the difficulties. We may also gain by looking into the mechanism of case adjustment processes[25] and by analyzing their syntactic-semantic significance.[26]

FOOTNOTES

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1. Chomsky (1973, p. 233) reasserts that semantic and grammatical relations of the main verb to the noun phrases "are of no concern to the transformations, which applies blindly in all cases." However, in the same paper (pp. 242-43), he refers to the "specified subject condition" which does not permit association of not with many in (I):

   I. I didn't see John's pictures of many of the children.

   For some reasons, he thinks that the assignment of the scope of negation is a matter of semantic interpretation; the "specified subject condition", therefore, "blocks a semantic rule", and not a transformation.

2. Sinha (Forthcoming, pp. 101-103) gives reasons for treating grammatical relations in terms of agents and patients of predicates. There are cases in which passivization is blocked if a subject is not an agent or an object is not a patient:

   Ia. The idea never entered my mind.
   b. *My mind was never entered (into) (by the idea).
   IIa. She fears the consequences.
   b. *The consequences are feared.

   Relational grammar cannot explain why some to datives may have three passive forms but for datives have only one. Besides, some to datives have only two passives and some have only one (Green 1974, pp. 80-98). Some languages do not allow indirect object (datives) to become the subject of a passive sentence if both the direct (accusative and indirect object are present.

3. Postal (1974, fn. 24) suggests that constraint II blocks not only the application of passive to the output of rules like extraposition and NPextra but also the combination of these rules in reverse order without any appeal to extrinsic rule ordering.

4. Postal suggests that the NP that does not start out as a subject and never undergoes subject creating rule cannot launch a quantifier:

Ia. He has checked all the nurses.
b. *He all has checked the nurses.
c. *He has all checked the nurses.

Secondly, the new subject created by passive can launch a quantifier but the initial subject displacement cannot:

IIa. All of the robots tickled her.
b. The robots all tickled her.
c. She was tickled by all the robots.
d. *She was all tickled by the robots.
e. *She all was tickled by the robots.

The starred sentences in (I) and (II) go against Lasnik and Fiengo's (1974) claim that floating quantifiers do not need any reference to subjecthood.

5. Hindi has a related transitive - intransitive pair: *nikalna* 'to drive out', 'to turn out' and *nikalna* 'to come out.' One may come out of a room without being driven out, i.e., the intransitive is non-commital about the cause of coming out but the transitive, whether in active or in passive, suggests that one has come out because one has been compelled to.

6. Keenan (1976) might claim that he was talking about the independent existence of a subject only with reference to a basic (as against a 'derived') subject. As a matter of fact, he does claim that in general 'non-basic subjects are never more subject-like than basic subjects.' (p. 323).

7. Though Keenan (1976, p. 321) suggests that 'expressing an agent, if there is one, does not seem even a sufficient condition on basic subjecthood', he does not deny that an agent if present, is a subject of a basic sentence.

8. When the main verb is transitive and is in the perfective, the subject is marked by a postposition *ne*; in all other cases the subject remains unmarked. The verb agrees with the subject only when it is unmarked.

9. Keenan (1976) points out that in Swedish, Sinhalese, Afrikaans, Thai, Vietnamese, Chinese, Japanese, Malagasy and Maori the verb does not agree with any NP and in an ergative language like Basque the verb agrees with the direct and sometimes indirect object in addition to agreeing with a subject.

10. American structuralists working on Hindi (such as Gumperz *et al* - 1967, Fairbanks and Mishra - 1961, Southworth - 1971) have divided Hindi cases into two categories, direct and oblique. The NP that has no postposition is in the 'direct' case and the NP followed by a post position is in the 'oblique' case. Such a description is very misleading, for, it would treat the subject NP in (i) as 'direct' case and the subject NP in (13a) as the oblique case.

i. Leela Reeta ko kitab detī hɛ̃
'Leela gives a book to Reeta.'

As Keenan and Comrie (1972) do not explain what they mean by the 'oblique NP', we assume they use the term in the sense in which structuralists have been using them. The preceding argument is based on this assumption and is intended to show the disadvantage of having categories like the oblique NP, in relational grammar.

11. Li and Thompson (1976, p. 465) point out that in languages that differentiate between subject and topic (e.g. Philippine languages), topic occupies initial position more often than subject does. This, they suggest, can be understood in terms of discourse strategies. As relative clause formation and other sentential embeddings are guided by discourse strategies, Li and Thompson's observation supports Kuno's conjecture. If Kuno is right, and I suspect, he is, Accessibility Hierarchy needs reformulation for a wider applicability.

12. (i), according to Li and Thompson, is such a sentence:

    i. *As for education*, *John prefers Russell's ideas*.
    Topic Comment

    'As for education', or the proposition, 'insofar as education is concerned' is the 'topic' and John is the subject of (i).' The topic proposition exists independently of John, but the comment can be appreciated only in terms of the topic. We are neither asked to appreciate 'John' nor 'Russell's ideas' in absolute terms; they must be viewed in terms of the domain established by the topic.

13. Professor Hamp has pointed out to me that (14g) is O.K. if it is an answer to a tricky question and both 'once' are coreferential.

14. The concept of principal and subordinate agents is well defined by classical Indian grammarians. Following Cardona (1974, pp. 262-64) we may suggest that in (15a) 'the servant' is the principal agent because it is he who cleaned the house. In (16a) also it is the servant who cleaned the house, but (16a) is not about'who cleaned the house' but about 'who got the house cleaned.' Thus, in (16) the servant is just an instrument- a subordinate agent - who carried out the order of the principal agent. Notice that even in (16c), which does not have any overt principal agent, 'the servant' retains the same role.

15. One problem in refuting Keenan's (1976) claims is his abundant use of expressions like 'usually', 'in general', 'possible'. etc. This style makes it possible for him to make claims in such a way that they are not falsifiable.

16. The extract is taken from *Heat and Dust* (p. 40), a novel by Ruth P. Jhabvala (1976, Harper and Row).

17. Kachru's (1971) claim that Hindi causatives containing *apna* are

ambiguous is based on questionable data. I am sure, she would agree that though *dikhana* 'to show' in (i) is morphologically like *kᵊrana* 'to get done', syntactically the two verbs are not alike. The causative of *dikhana* is *dikhwana* 'to cause to be shown' which is equivalent to *kᵊrwana* 'to cause to be done.' *Kᵊrana* and *kᵊrwana* are semantically identical but *dikhana* and *dikhwana* are not. (ii), which is parallel to (20), is equally ambiguous:

i. Ramne Vinodko ᵊpnī kitab dikhayī

Ram$_i$ Vinod his$_i$ book showed.
(agent) (dative) (acc.)
'Ram showed Vinod his book.'

ii. Ramne Vinodse Pramodko ᵊpnī kitab dikhwayī
Ram Vinod Pramod his book caused to be
(agent) (instr.) (dative) (acc.) shown
a. 'Ram$_i$ made Vinod show Pramod his$_i$ book.

b. 'Ram made Vinod$_j$ show Pramod his$_j$ book.

18. Equi-NP deletion in English *obligatorily* deletes the subject of *for*-*to* (or *poss*-*ing*) clause just in case it is coreferential with the subject of the matrix clause. Thus, from (ia) we get (ib):

ia. *I* would hate for *me* to find the house empty.
b. I would hate to find the house empty.

It is not very clear from Kachru *et al's* examples (in this volume) that *kᵊr*-conjoining creates condition for Equi-NP deletion, for *kᵊr*-conjoining does not necessarily delete the subject of the matrix sentence only.

19. The error involves the use of *bulayajana* 'to be called' in place of *bulana* 'to call', i.e. of the passive in place of the active. It is not clear to me why it works this way. Perhaps, the constraint on the kᵊr conjoining is that both clauses must have the same underlying agent or the same theme.

20. Cardona (personal communication) suggests that sentences like (i) cause problems for an entailment treatment:

i. He loves his wife though she is abhorring.

(i) sounds like an apparent contradiction but is not really so. A man may love his wife for her looks, nature or for some wierd reason. Besides, she may not be abhorring in his eyes. What we want to discuss here is the relation between (iia) and (iib):

IIa. wəh əpnT pətnT se pyar karta hɛ
he his wife with loves
'He loves his wife.'

b. use əpnT pətnT se pyar hɛ
to him his wife with love is
'He is in love with his wife.'

Though (IIa) entails (IIb), by itself (IIb) tells us nothing about (IIa). One may be in love with someone without making any effort.

21. Though Masica (1976) has pointed out the existence of such dative constructions in non-Indian Indo-European languages like Russian, German, Czech and Romanian, he has not mentioned the fact that Old English and (less frequently) Middle English had dative constructions in the subject position. Curme (1913) quotes sentences like (I) and (II) from early modern English:

I. Me was taught.
II. Me was given a book.

22. A subject 'is the element of a sentence', says Martinet (1922) 'which cannot be left out, even if what is meant does not require its presence.' He gives the examples of 'it rains' and says that on hearing it, no one wonders what rains. But we have already seen that 'non-omissibility' (i.e. Keenan's 'indispensibility') is not such a foolproof criterion. Martinet himself foresees 'different degrees of non-omissibility'.

23. We have not gone into the several aspects of the use of the term in classical and modern literature, but we have covered all the significant theoretical points. For details one may look into Jespersen (1924, chapter xi), Hjelmslev (1935), Lehmann (1976) and Kuno (1976).

24. See Fillmore (1972) and Sinha (1973) for details involving problems of unique case assignment. Sinha (1973), for instance, brings in the concept of 'theme' to explain the difference between (Ia) and (Ib):

Ia. Bill sold the book to John.
b. John bought the book from Bill.

It also suggests why converse relations should be kept separate from transformationally derived relations.

25. Fillmore (1971) explains why such a rule is needed and Kiparsky and Staal (1969) and Cardona (1974) explain how it worked in Panini's case grammar.

26. Gruber (1965, pp. 29-30) discusses the significance of the presence or absence of agent in a sentence. He claims (I), (II) and (III) are derived from a similar prelexical structure but there are significant differences between them because of the difference between a theme and an agent:

I. Bill gave a book to John.
II. John obtained a book from Bill.
III. The book went from John to Bill.

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Subjecthood, Reflexivization, Emphatic Pronominalization and Clause Matedness in Bengali (With Some Side Glances at Hindi)

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The purpose of this paper is to explore the heretofore little explored use of the Bengali so called reflexive pronoun *nije*-. In particular, I will discuss the adequacy of clause matedness, coreferentiality, and especially, of subjecthood, as conditions triggering the use of *nije*- in Bengali.

Because it has been more thoroughly studied, and because we will find it interesting later to contrast some points of similarity and dissimilarity, let's look first at some literature on reflexivization in Hindi. The basic generalization for Hindi, as David Cohen (1973) reported it, is given in (1):

(1) a. *apnaa*'s antecedent must be within the same simplex S.
b. *apnaa*'s antecedent must be the subject of that S.

In the same article, Cohen comes to the conclusion that the [+CAUSE] higher verb analysis for Hindi causatives should be abandoned on the basis of data like (2):

(2)	raam	ne	vinod	ko	apnii	kitaab	dikhaaii
		past		to	own	book	showed

which means unambiguously that Ram showed Vinod Ram's book. Cohen claims that this is in conflict with the causative analysis as in (3):

(3) $_{S_o}$[Ram CAUSE $_{S_1}$[Vinod see x's book]$_{S_1}$]$_{S_o}$

where there should be nothing to prevent reflexivization from operating on the lower cycle should *Vinod* and *x* be coreferential.

However, it seems intuitively unfortunate to give up an elegant and well established analysis such as that of Hindi causatives in terms of a higher predicate [CAUSE]. Aside from this frivolous consideration, Yamuna Kachru and Tej Bhatia in a paper given at the past summer's Linguistic Society of America meeting, and now published (Kachru and Bhatia 1975), have presented data like the following:

(4) raaj maantaa hai ki ratan apnaa sab se baṛaa
considers that own all than big

duSman hai
enemy is
'Raj considers that Ratan is Ratan's own worst enemy'

(5) raaj ratan ko apnaa sab se baṛaa duSman maantaa hai
to own all than big enemy considers
'Raj considers Ratan to be Raj's own worst enemy'

(6) raaj ratan ko us kaa sab se baṛaa duSman
to him gen. all than big enemy

maantaa hai
considers
'Raj considers Ratan to be his (≠ Raj) worst enemy'

In (6), on the reading that *us* refers to Ratan, Raising has applied, eliminating the status of the NP *Ratan* as an underlying subject. In (4). by contrast, *Ratan* has never been demoted--has never ceased to be an underlying subject. The idea of *demotion* here is taken from some recent work of Postal and Perlmutter, not yet definitively formulated in print, called Relational Grammar. Kachru and Bhatia conclude that reflexivization in Hindi must entail certain global constraints. Very roughly summarized, it seems that either (a) reflexivization is a global rule applying last or post cyclically to convert any NP_1 to *apnaa* which is commanded by a coreferential subject NP_2 which at some point in the derivation was a clause mate of NP_1, or (b) reflexivization applies anywhere the conditions of subjecthood, coreferentiality, and clause matedness are met--that is, it applies within the cycle--and is a global rule which looks ahead in the derivation to check that the governing NP must never have been demoted from subjecthood in the course of the derivation. Either way, the analysis involves a global solution. All this considerably complicates the analysis of reflexivization in Hindi, and I have no doubt that the debate is far from over.

Bengali reflexivization seems to work similarly to Hindi reflexivization. It is easy to establish that subjecthood plays a role in triggering the use of *nije-*. Just as in English it is impossible to say, "Himself killed John" (impossible, that is, except for the trained linguist), so in Bengali (7) is impossible:

(7) *nije pulok ke ekṭaa stirio dilo
self to a-def. stereo gave
*'Himself gave Pulak a stereo'

And it is easy to demonstrate that clause matedness plays a role in Bengali reflexivization, as shown in (8):

(8) *pulok bOllo je nije khub khaaraap lok
said that self very bad person
*'Pulak said that himself was a very bad person'

In Bengali as in Hindi, again, it can be shown that some constraint on demotion from subjecthood affects the use of *nije-*, as seen in (9):

(9) a. syaam pulok ke diye nijer kaaj kOraalo
by own-gen. work caused-to-do
b. Syaam had Pulak do Syaam's work
c. Syaam had Pulak do Pulak's work

(9b) is the correct reading of (9a). (9c) is wrong. In the underlying structure of sentence (9a), under the causative analysis, *Pulak* is the subject of a subordinate clause "Pulak do x's work'. The NP *Pulak* is demoted from subjecthood by a subsequent series of transformations, and therefore, cannot be the trigger for *nijer* in (9a).

Of course, if the use of *nije-* in Bengali were this simple to account for--if it were just like Hindi *apnaa*--then I could stop here. But there are complications. Consider the following two sentences:

(10) a. syaam taar gaaṛii thik korche
his/her car right is-making
'Syaam is fixing x's car'
b. Syaam nijer gaaṛii thik korche
own-gen. car right is-making
'Syaam is fixing his own car'

In (10a), the car could belong to anyone, coreferential or not with the subject, except, of course, for the shifter persons--the person addressing (in which case it would be 'my car') or the person addressed (in which case it would be 'your car'). In fact, because Bengali lacks grammatical gender, (10a), as indicated in the gloss, could mean 'her car'. In (10b), on the other hand, the car can belong only to the subject of the sentence. (10b), furthermore, is emphatic. Under ordinary circumstances the Bengali speaker says (10a) and lets context speak for itself. (10b) would become a natural utterance in, for example, the case of possible ambiguity, as 'Is Syaam fixing Pulak's car?' (syaam ki pulokeṛ gaaṛii ṭhik korche?), to which a reply could be 'no' (naa), followed by (10b). (10a) and (10b) are in contrast to the corresponding Hindi sentences, as given in (11a,b):

(11) a. raam us ki gaaṛii ṭhik kar rahaa hai
his/her gen. car right making is
'Ram is fixing x's (≠ Ram) car'
b. raam apnii gaaṛii ṭhik kar rahaa hai
own
'Ram is fixing Ram's car'

Later on we will see that part of the problem in (10a,b) has to do with peculiarities of the Bengali genitival construction under conditions normally adequate for nije-insertion. In the meanwhile, one thing has been demonstrated, and that is that nije- in Bengali serves two functions: reflexivization and emphatic pronominalization. We have no precedent for handling this phenomenon from Hindi, for in Hindi the reflexive pronoun and the emphatic pronouns are not exactly the same. Hindi has at least three emphatic pronouns. One is Perso-Arabic derived khud, and a second is Sanskrit-derived svayam; these mean roughly 'oneself' as in (12):

(12) raam $\left\{\begin{array}{l}\text{svayam}\\ \text{khud}\end{array}\right\}$ aa gayaa
self come went

'Ram himself came'

The third is apne aap, which translates roughly as 'by oneself'.

To say (13) in Hindi:

(13) raam apne aap aa gayaa

implies that Ram came willfully or under his own steam. The reflexive pronoun and the emphatic pronouns in Hindi all obey the subjecthood condition. So do both reflexive and emphatic nije- in Bengali. That is, in (14):

(14) aami taake nijer gaaṛii dilam
I to-him own-gen. car gave
/her

nije- is emphatic, and the above sentence corresponds to the reading in (15):

(15) aami taake aamaar gaaṛii dilam
my-gen.
'I gave him/her my car'

(14) cannot have the same reading as (16):

(16) aami taake taar gaaṛii dilam
his/her-gen.
'I gave him/her x's car'

Consider also the examples of (17):

(17) a. se nije b0llo je se aasbe
(s)he self said that (s)he would-come
'(s)he her/himself said that x would come'
b. se b0llo je se nije aasbe
(s)he said that (s)he self would-come
'x said that (s)he her/himself would come'

Both of these are emphatic, and both are ambiguous in isolation. However, given either of the above and no further information, the Bengali speaker or his English speaking counterpart would strongly tend to assume that one person is both speaking and coming, even though this need not be the case. In the case of real discourse confusion one can utter the following in either Bengali or in English:

(18) se nije bOllo je se nije aasbe
(s)he self said that (s)he self would-come
'(s)he said that (s)he her/himself would come'

Ordinarily it would be assumed by Bengali and English speaker alike that if anyone is taking such trouble to be emphatic, there must be only one comer and one speaker. But the nije of the subordinate clause in (18) can equally well mean in person. So, given, say, the context that Pulak is the manager for the singer Mukesh and that there is a dispute as to whether the singer will or will not appear in person at some public function, one can perfectly well utter, 'Pulok nije bOllo je se nije aasbe' to mean 'Pulak himself said that he (meaning Mukesh) would come in person', implying, 'and he ought to know'. The point is that emphasis, even double emphasis, doesn't get you beyond the limits of the clause. This is what prevents (19) from being possible:

(19) *se bOllo je nije khub khaaraap lok
(s)he said that self very bad person
*'He said that himself was a very bad person'

So what do Bengali speakers do when they have to be precisely coreferential across clause boundaries? They don't pronominalize. For example, see (20):

(20) a. syaam pulok ke bOllo taar gaaṛii ṭhik korte
to said his/her car right to-make
'Syaam told Pulak to fix x's car'

b. syaam pulok ke bOllo nijer gaaṛii ṭhik korte
own-gen.
c. syaam pulok ke bOllo or nijer gaaṛii
demons.-gen. own-gen.
ṭhik korte
d. syaam pulok ke bOllo er nijer gaaṛii
demons.-gen. own-gen.
ṭhik korte
e. syaam pulok ke bOllo syaamer gaaṛii ṭhik korte
Syaam-gen.
f. syaam pulok ke bOllo puloker gaaṛii ṭhik korte
Pulok-gen.

(20a) means Syaam's, Pulak's, or some other person's car is to be fixed. The emphatic (20b) means that either Syaam's or Pulak's car is to be fixed. Because of the subjecthood condition, the Bengali speaker has no offhand way of knowing which is meant, because emphatic pronominalization could have taken place on the cycle of the subordinate or the matrix clause indifferently. The conditions for *nije*-insertion are met on either cycle. (20c) is still more emphatic, but still leaves the speaker in the dark. I inquired of my informant whether (20d), using the demonstrative *e* for nearness, would lead a speaker to adopt a kind of 'former-latter' strategy so that he would select the nearest candidate in the sentence, namely *Pulak*, as coreferential with *er nijer*. Unfortunately, this doesn't work--because *o* and *e*, the far and near demonstratives, respectively, are shifters, and (20d) means emphatically that Syaam told Pulak to fix his own car--of the person near the speaker and addressee. (20e) and (20f) are the only ways the Bengali speaker can get across just whose car, of Syaam's and Pulak's, he is talking about. Such sentences would be odd in Hindi, but they are perfectly common in Bengali.

There is some evidence that Bengali speakers favor a certain interpretive strategy when dealing with sentences with *nije-*. Consider example (21):

(21) maa pulok ke nijer pyaaṇṭ dilo
mother to own pants gave

Because of the subjecthood condition, (21) means only that mother gave Pulak *her* pants. Now consider (22):

(22) maa pulok ke b0llo nijer pyaaṇṭ porte
mother to said own-gen. pants to-wear

Theoretically, this sentence with emphatic nije- should optionally read either 'Mother told Pulak to put on her own pants' or 'Mother told Pulak to put on his own pants'. However, my informant was only able to get the second reading. It would seem that real world knowledge interacts with the interpretation of the coreferentiality of *nije-*. We will return to this later. Now look at (23) with emphatic *nije-*:

(23) ḍaakṭaarṭi pulok ke b0llo nijer repyuṭesonṭa
doctor-def. to said own-gen. reputation-def.
proṭekṭ korte
to-protect
'The doctor told Pulak to protect his reputation'

Theoretically, this sentence should also have two readings, each equally good, depending on whether the doctor or Pulak is considered coreferential with *nije-*. However, my informant preferred the reading in which *Pulak* is coreferential. It would seem that in processing sentences with subordinate clauses containing *nije-*, the Bengali speaker employs a strategy of seeking the coreferential subject within the subordinate clause itself. This would be evidence that would incline one toward accepting the proposal that nije-insertion is an anywhere rule of a lookahead, global type, rather than a last cyclic global rule. Now consider (24):

(24) a. pulok taar poesaa diye ekṭaa gaarii kineche
his-gen. money with a-def. car bought
'Pulak bought a car with his money'
b. syaam pulok ke bOllo nijer poesa diye ekṭaa
to said own-gen. money with a-def.

gaarii kinte
car to-buy

Emphatic (24b), also, should theoretically have two readings. Yet my informant found it much easier, again, to get the reading that Pulak is told to buy a car with Pulak's money. In order to get the reading that Syaam is urging Pulak to use Syaam's money,my informant had to construct for himself an elaborate context: more than one person is offering Pulak money to buy a car with; Pulak is uncertain as to whose generosity he ought to avail himself of; and Syaam is going out of his way to be nice to Pulak. Of course, all this is interpretive evidence only. However, in the absence of any other means of choosing between two possible solutions for the formulation of the nije-insertion rule--one involving a last cyclic global rule and the other, a cyclic look-ahead global rule--I would feel that the interpretive phenomena point toward the second solution.

So far I have emphasized the subjecthood condition as a necessary one for nije-insertion. However, there is a certain class of cases in Bengali where it is not sufficient. These cases are those involving genitival objects. We first encountered them in (10). To try to find out what is going on, I elicited from a Bengali speaker a number of sentences with genitival objects, all with either ordinary pronominalization or with reflexivization--none with emphatic *nije*-. A rough pattern is detectable. I have organized the data as presented in examples (25)-(42). In the first group (25)-(28), all the objectival genitives involve body parts:

(25) pulok nijer buk caapṛaalo
own chest beat
'Pulak beat his chest'

(26) pulok nijer paa maapaalo
own foot caused-to-be-measured
'Pulak had his foot measured'

(27) pulok nijer daaṛi chããṭaalo
own beard caused-to-be-trimmed
'Pulak had his beard trimmed'

BUT (28) pulok taar cul kaaṭaalo
his hair caused-to-be-cut
'Pulak had his hair cut'

In the case of intimate body parts, ordinary reflexivization occurs, and *nije*- is inserted. Apparently, 'intimate' does not extend to the hair on one's head, at least, not when one is getting it cut. Let's look now at some ego-related abstract genitival expressions (29)-(33):

(29) pulok nijer cehaaraa ṭhik korlo
own appearance right made
'Pulak improved his appearance'

(30) pulok nijer bhaagy ke gaali dilo
own luck to curse gave
'Pulak cursed his luck'

(31) pulok nijer aalosy kaaṭiye uṭhlo
own laziness having-caused-to-be-cut rose
'Pulak overcame his laziness'

(32) pulok nijer byaadhi ṭhik korche
own illness right is-making
'Pulak is treating his own illness'

(33) pulok nijer kOthaa bolche (expression *x* *y-er* (gen.)
own story is-talking *kOṭhaa* *bOl*- 'x talks
'Pulak is talking about himself' about y'

All these abstract ego-related objects in genitive expressions have *nije*- under ordinary reflexivization--none take the pronominal genitive. Now let's look at some kin terms in (34)-(36):

(34) pulok or bhaayer sone kOthaa bolche
his brother-gen. with story is-talking
'Pulak is talking with his brother'

(35) pulok or striiyer sone kOthaa bolche
his wife-gen. with story is-talking
'Pulak is talking with his wife'

(36) pulok {or / nijer} maa ke gaali deye
{his / own} mother to curse gives
'Pulak curses his mother'

Kin terms display a mixed use of ordinary pronominalization and reflexivization. At least, the term *mother* can take ordinary pronominalization or reflexive *nije*-. Finally, let's look at some material items of possession:

(37) pulok nijer ghoṛi dekhlo
own watch looked-at
'Pulak looked at his watch'

(38) pulok nijer cOsmaa khule phello
own glasses removed
'Pulak removed his glasses'

(39) diṭekṭibṭi or bonḍukṭaa baar kOrlo
detective-def. his gun-def. took-out
'The detective took out his gun'

(40) pulok or lekhaaṭaa aabaar pOṛlo
his writing-def. again read
'Pulak reread his composition'

(41) pulok {taar / nijer} kukurṭaa ke ḍaaklo
{his / own} dog-def. to called

'Pulak called his dog'

(42) pulok {taar / nijer} nObhelṭaa chaapaalo
{his / own} novel-def. caused-to-be-published

'Pulak had his novel published'

Again, none of the above, (25)-(42), involve emphatic pronominalization. Nije- could, of course, appear emphatically in any of the above examples. It is here that subjecthood as well as the other conditions as triggers for reflexivization are seen to be not adequate. Clearly semantic considerations enter into a speaker's decisions as to nije-insertion when it comes to objectival genitive expressions. For the informant who gave me the preceding data, who is an educated speaker from Calcutta, there seems to be a semantic intimacy heirarchy. Intimate body parts and abstract ego-related terms rate high on intimacy, and take reflexive nije-. Most kin terms, nonintimate body parts, and many items of material possession rate low on intimacy, and take an ordinary pronominal. In a shadow area inbetween fall things which both are possessed and which the speaker feels to have some quality of intimacy. These items caused the greatest hesitation on the part of the informant, and some fell right on the thin dividing line such that he was unable to make a choice. For instance, one's pet dog (example 41) was, for him, such an item. Clearly no grammatical relations of subjecthood, clause matedness, coreferentiality or so forth will be adequate for accounting for the subtle semantic choices involved in the use of the reflexive or nonreflexive pronouns for object genitive constructions in Bengali.

To summarize, the insertion of nije-, both emphatic and reflexive, in Bengali proceeds much as ordinary reflexivization does in Hindi. While nije-insertion applies where conditions of coreferentiality, clause matedness, and subjecthood of the controlling NP obtain, nevertheless some additional apparatus in the grammar is necessary to account for the fact that demotion of the governing subject NP during the course of the derivation will result in an ungrammatical sentence. There is some scant evidence from one speaker, of an interpretive nature, that the facts of demotion are better handled with a cyclic look-ahead global rule than with a last cyclic global rule. Finally, in genitival object constructions, the above mentioned conditions on nije-insertion are necessary but not sufficient. Additional factors related purely to semantics and to real world knowledge play a role in such expressions in determining whether or not nije-insertion occurs; the factors here are not discrete but variable, and the distinctions are not clear cut but hazy; judgements are certain to vary from speaker to speaker and even from moment to moment for the same speaker.

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Nested Case Relations and the Subject in Tamil

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When confronted with a sentence like the Tamil sentence in (1):[1]

1) onakku tamiz teriyumā?
you-D Tamil know-Q
Do you know Tamil?

students, teachers, grammarians, and other well-intentioned individuals often ask the question: 'What is the subject of this sentence?" (Sometimes "grammatical" subject is what is meant and sometimes "logical" or "underlying" subject is intended---the remarks below are applicable to both versions.) But this question, of course, is as prejudicial to ask of a sentence as it would be to ask of me the classic question, "Have you stopped beating your wife", or more analogously, "Who is your mistress?" The first and last of these questions *presuppose* that (a) the sentence and I in fact *have* a subject and a mistress, respectively, and moreover that (b) we each have only *one* of them (subject and mistress, respectively). To preserve a proper understanding of the integrity of Tamil grammatical structure (and my personal reputation), I feel I must state for the record that presumption (a) is not at all necessarily true, and that on the other hand, for some of those Tamil sentences that do have subjects, even (b) is, in a peculiar sense, not true. I will attempt to justify each of these disavowals below. The first issue (subjectless sentences) is somewhat familiar and perhaps not even controversial; the second (nested case relations) is somewhat new.

The Tamil case system and the subject

First, some preliminary remarks about the nature of clause-internal grammatical relations in Tamil. As is well-known, Tamil is an agglutinative, suffixing, verb-final language. It has a case system whose categories (except for the nominative, the unmarked form or "case" of the noun) are expressed by means of discrete morphemes suffixed to nouns. These categories are conceptually based and straightforwardly used: that is, each represents a particular way in which the role of a noun phrase in a proposition is conceptualized and every use of the case is motivated in some natural way by this conceptualization. There are, in my opinion, no grounds for hypothesizing that a speaker's use of a case category is in some way a surface manifestation of some independent underlying representation involving allegedly universal syntactic relations, "semantic case" relations, or other sort of relation different from the language's case system itself. In other words, I do not acknowledge the necessity or validity of relating Tamil case forms, on the one hand, to allegedly fundamental syntactic relations such as $[\text{NP VP}]_S$ or $[\text{V NP}]_{VP}$ (whose status as syntactic universals I consider highly dubious), nor on the other hand, to allegedly fundamental case notions such as "agent", "patient",etc. (whose universal semantic status I consider far from demonstrated). Rather, I believe that the structure and meaning of Tamil sentences can only be adequately understood in terms of the systematic interrelationships that reveal themselves within the total grammatical and lexical resources of the language itself.

The Tamil cases and their suffixes in formal Tamil and spoken

Tamil are:[2]

(nominative)		FTa.	STa.
accusative	(A)	-ai	-e
dative	(D)	-kku	-kku
locative	(L)	-il	-le
genitive	(G)	ø, -in, uḍaiya, -adu	ø, -ōḍa, -adu
ablative	(Ab)	-ilirundu	-lerundu
sociative	(S)	-ōḍu, -uḍan	-ōḍa
instrumental	(I)	-āl	-āle

Each of these cases (other than the nominative) encodes a semantic relationship the speaker perceives and wishes to convey between the NP and the rest of the proposition. These semantic relationships are called case relations (usually going by the same name as the case form ---except that the "object" relation is the usual name corresponding to the accusative case) and are the major type of clause-internal grammatical relations in Tamil (others being the adverbial relation, conjunction, etc.). The nominative, however, does not directly correspond to a case relation. It is actually a non-case, the form of the noun used when the speaker does not intend to convey any particular case relation (e.g., as when the noun is used predicatively in an equational sentence of the "A is a B" type) or when the speaker omits the formal case marking since the case relation intended is clear from the semantic nature of the noun (or for various other reasons).

There is, however, a particular grammatical relation that is closely associated with the nominative "case"---namely, the subject relation. Just as the nominative is the unmarked or neutral case form, the subject is the unmarked or neutral case relation: it is conceptually the least specific since its meaning (i.e., the nature of the role the subject NP plays in the propositional complex) is determined by and varies with the meaning of the particular verb it relates to. Part of the very meaning of most verbs is the nature of their relation to one or more NP's (i.e., NP "slots" or "roles"). Since this is so, at least one of these NP's can remain uncategorized with respect to the set of case relations without loss of clarity, provided the speaker and hearer are aware of the semantics of the verb. The set of NP's which thus remain uncategorized but are dependent for interpretation on individual verbs are subjects. This is why subject NP's are expressed by the nominative form of the noun, which is neutral and non-specific with regard to case relation. Because verbs make reference to a wide range of types of events, activities, etc. with different types of semantic involvement of NP's, the subject typically covers a range of logically differentiable roles in a proposition.

The particular semantic range of the subject relation in Tamil is basically similar to that of other "accusative case system" languages (i.e., languages which have a specific case relation and case form for the so-called "patient" in a propositional complex involving both a "patient" and an "agent" or "doer", as opposed to "ergative case system" languages, for example, which have a specific case relation and case form for the "agent" in such a situation). Thus, the sample presented below (2-24) of the subject relation in Tamil ranges in logical type from a referent of an existential proposition to the "remote agent" of an act actually performed by someone else (the sub-divisions indicated are ad hoc and are not intended to represent genuine semantic distinctions).

The major purely grammatical phenomenon associated with the subject in Tamil is the typical one of verb-agreement, the requirement that the finite verb contain a suffix that makes pronominal reference to the subject in terms of person, number, and gender (PNG). In the examples below, these suffixes are indicated in the morpheme-by-morpheme gloss by using the English pronoun corresponding to the appropriate PNG categories.

Samples of the semantic range of the subject relation

a. referent of existential proposition

2) būdam uṇḍu — 'There are demons.'
demon is

3) keṇattule taṇṇi irukku — 'There is water in the well.'
well-L water be-pr-it

b referent of characterization or localization

4) kalyāṇi aẓahā irukkrā — 'Kalyani is pretty.'
kalyani beauty-adv be-pr-she

5) Maṇi vīṭṭule irukkrān — 'Mani is in the house.'
Mani house-L be-pr-he

c. "patient" of a state

6) kaṇṇāḍi oḍanjirukku — 'The mirror is broken.'
mirror break',be-pr-it

7) avan tūngrān — 'He is sleeping.'
he sleep-pr-he

d. "patient" of a process or change of state

8) payyan vaḷaṇdān 'The boy grew.'
boy grow-pa-he

9) vēṇu mandiri ānān 'Venu became a minister.'
Venu minister become-pa-he

10) laḍḍu kallā mārucçu 'The laddu changed into stone.'
laddu stone-adv change-pa-it

11) raṇḍu varuṣam āccu 'Two years passed.'
two year become-pa-it

e. "patient" of an event or activity

12) avan kīẓe viẓundān 'He fell down.'
he down fall-pa-he

13) kāru marattle mōduccu 'The car dashed against a tree.'
car tree-L dash-pa-it

14) vibattu naḍandadu 'An accident occurred.'
accident happen-pa-it

15) kūṭṭam naḍandadu 'A meeting took place.'
meeting happen-pa-it

f. doer ("agent"?) of an act or activity

16) avan payyan kīẓe kudiccān 'His boy jumped down.'
he-(G) boy down jump-pa-he

17) payyan pāḍrān 'The boy is singing.'
boy sing-pr-he

18) avarōḍa mahan ennōḍa tamiẓ pēsuvān
he-G son me-S Tamil speak-fu-he
'His son speaks Tamil with me.'

19) avan kayye nīṭṭunān 'He extended his hand.'
he hand-S lengthen^{t}-pa-he

g. doer or "agent" of an act or activity affecting a separate entity

20) appā payyane adiccāru 'Father beat the boy.'
father boy-A beat-pa-he

21) avaru payyane nallā vaḷakkrāru
he boy-A good-adv grow^{t}-pr-he
'He is raising the boy well.'

22) mandiri kūṭṭatte naḍattunāru
minister meeting-A conduct-pa-he
'The minister conducted the meeting.'

h. Instigator or "remote agent" of an event or act done by someone else

23) arasu āḷe veccu snēhidane koṇṇān
Arasu person-A put, friend-A kill-pa-he
'Arasu killed his friend [by having someone do it].'

24) ava puruṣane kaḍekku pōha veccā
she husband-A shop-D go-inf put-pa-she
'She made her husband go to the store.'

Subjectless sentences

The category of subject is not, however, an obligatory constituent of a Tamil sentence. There is no reason that it should be. That a subject is obligatory for every sentence (and thus must be supplied when semantically non-existent, as the it in "It is rainy in Kerala.") is a special property of individual languages (e.g., English) rather than a general principle of linguistic structure. This is probably obvious and need not be emphasized. The influence, however, of transformational methodology recently and its heavy reliance on phrase structure rules such as S --->NP + VP (or their more recent equivalents) to represent allegedly underlying structure in a wide variety of languages have given a new lease on life to the notion of the subject as an essential component of sentences, at least in "deep" or "logical" structure. Thus the above statements might not be superfluous after all.

A distinction must be made between subjectless sentences and sentences in which there is a subject but it is not made explicit. In the latter case, we speak of an "understood" subject. An example of this is (25c):

25) a. payyan kaḍekku pōnān 'The boy went to the store.'
boy shop-D go-pa-he

b. avan kaḍekku pōnān 'He went to the store.'
he shop-D go-pa-he

c. kaḍekku pōnān 'He went to the store.'
shop-D go-pa-he

In (25c) there is neither a noun nor a pronoun serving as the subject NP of the sentence, although clearly it does have a subject, as indicated by its meaning and by the fact that something has motivated the speaker's use of the masculine singular PNG suffix on the finite verb. In short, as illustrated in (25), the Tamil speaker may omit specification of the subject NP if he feels that its identity is clear from the context, previous mention, or other reason. The verb-agreement endings (PNG), incidentally, do provide a representation of the subject of some minimal kind in most sentences and thus certainly contribute to the feasibility of subject NP omission, but one should not consider that it is a necessary condition, for Malayalam, which lacks verb-agreement, also tolerates subject NP omission in the same way as Tamil (although it is likely, accordingly, to be less frequent). Subjectless sentences, as in (1), are different from cases of subject omission because they lack a subject relation in the first place: all of the NP's have a grammatical relation to the verb other than that of subject. In such cases the finite verb takes by default a neuter singular PNG suffix.[3]

Dative-type

Turning now to true subjectless sentences, it is interesting that many involve a dative case. Examples are:

26) enakku tamiẓ teriyum 'I know Tamil.'
me-D Tamil know-fu-it

27) enakku pasikkudu 'I'm hungry.'
me-D be hungry-pr-it

28) enakku tale valikkudu 'I have a headache.'
me-D head hurt-pr-it

29) enakku inippu romba piḍikkum 'I like sweets very much.'
me-D sweet much like-fu-it

30) avanukku bayamā irukku 'He is afraid.'
him-D fear-adv be-pr-it

31) avaḷukku romba varuttamā irundadu 'She was very sorrowful.'
she-D much sorrow-adv be-pa-it

32) rājanukku sirippā vandadu 'Rajan was overcome with laughter.'
Rajan-D laugh-adv come-pa-it

33) avanukku kōbamā vandadu 'He became angry.'
him-D anger-adv come-pa-it

The dative NP's in these, together with those in (34-36), have sometimes been called "dative-subjects".

34) onakku tamiẓ puriyumā? 'Do you understand Tamil?'
you-D Tamil understand-fu-it-Q

35) enakku kāppi vēṇum 'I want some coffee.'
me-D coffee want/need-it

36) enakku romba vīḍu irukku 'I have lots of houses.'
me-D much house be-pr-it

This term is incorrect if it implies that these NP's actually bear subject relation to the finite verb and are only superficially marked for the dative case by a transformation or other grammatical rule. Semantically, these dative NP's are not subjects, but true datives, a conceptual relation which in Tamil centers on the notion of relation ---including direction toward, specification for, orientation with respect to, happening to, etc. The cognitive and emotive meanings which the verbs above represent are conceptualized in Tamil as "events" or sensations that happen to an individual, and the use of the dative case directly reflects this semantic fact. (The use of dative for possession in (11), of course, is an instance of the "specification for" sense of the dative.)

The term "dative-subject" probably arose as a concession to the translation-bias of the language-learner: the NP that is dative in Tamil is the subject in the English translation equivalents of these sentences, and the term allows one to think of these sentences in terms of their translations. Note that a sentence like (37):

37) enakku appaḍi tōṇudu 'So it appears to me.'
me-D that-way appear-pr-it

whose dative NP is semantically motivated in the same way as those above, has never been included in the "dative-subject" category, so far as I know. The reason undoubtedly is that its English translation does not lead the English-thinking grammarian to believe that its dative NP is "logically" the subject, as it seems to have done in the cases above.

The other question that arises in connection with these sentences is the possibility that the other NP (those that are nominative) is actually the subject so that a more accurate translation of the semantic structure of (26) and (35), for example, might be "Tamil is known to me" and "Coffee is wanted to me". This analysis is, in fact, correct for sentences (34-36). That it is incorrect for (26-33) is demonstrated by what happens when a human NP is substituted in this position:

38) a. enakku avane teriyum 'I know him.'
me-D him-A know-fu-it

b. *enakku avan teriyum[4]
me-D he know-fu-it

It is explicitly marked for the accusative case, indicating that this NP is in the object relation to the verb, a fact which is obscured in the case of non-human nouns because of the general rule that only human nouns are obligatorily marked for accusative case. Non-human objects bear explicit accusative marking only when definite reference is intended:

39) a. arasu dinamum enakku viṣayam ellām solluvān
Arasu daily me-D matter all tell-fu-he
'Arasu tells me everything every day.'

b. onakku inda viṣayatte yāru sonnānga?
you-D this matter-A who tell-pa-they
'Who told you this matter?'

It has to be admitted that the status of objects of *teriyum* is not entirely normal, as indicated by the fact that only human *pronouns* are obligatorily marked for accusative. If the object of a normal verb is a human NP---noun or pronoun---it must bear an accusative case ending, but with *teriyum* the case ending appears to be optional if it is a human noun rather than a pronoun:

40) a. onakku maṇiye teriyumā? 'Do you know Mani?'
you-D Mani-A know-fu-it-Q

b. onakku maṇi teriyumā? 'Do you know Mani?'
you-D Mani know-fu-it-Q

Correspondingly, in the case of non-human nouns, explicit accusative marking tends to be avoided even with definite reference intended:

41) a. onakku inda viṣayam teriyumā? 'Do you know this matter?'
you-D this matter know-fu-it-Q

b. ?onakku inda viṣayatte teriyumā? 'Do you know this matter?'
you-D this matter-A know-fu-it-Q

This state of affairs probably reflects the fact that teriyum is the product of a semantic and syntactic specialization of (including "drift" away from) the intransitive verb teri 'be visible or apparent'. In its normal unspecialized use this verb takes a subject (and has no object), as can be seen by the verb-agreement suffix in (42):

42) adō oru āḷu teriyirānē ... avan dān maṇi
see there one person be apparent-pr- he emph Mani
-he-emph
'That person you can see over there... that's Mani.'

It is possible that this ambivalence with regard to use of the accusative with teriyum indicates that the drift from a semantic intransitive to a semantic transitive (with reference to the thing perceived or known) has not reached complete resolution.

However, the tolerable status of (41b) is sufficent to demonstrate that, unlike teriyum, the deceptively similar verb puriyum does not have an object, and so we may take the nominative NP in (34) to be its subject:

43) a. onakku inda viṣayam puriyumā?
you-D this matter understand-fu-it-Q
'Do you understand this matter?'

b. *onakku inda viṣayatte puriyumā?
you-D this matter-A understand-fu-it-Q

The outright ungrammaticality of the accusative in (43b) suggests the non-object nature of that NP. We are unable to use the crucial test of a human noun in this position because *puriyum* is semantically incompatible with any noun other than nouns of cognizable content ('sentance', 'story', 'English', etc.) and a human noun is therefore ungrammatical here regardless of case:

44) a. *onakku avan puriyumā? 'Do you understand him?'
you-D he understand-fu-it?

b. *onakku avane puriyumā?
you-D him-A understand-fu-it-Q

We can, however, use the human-noun test in the case of *vēṇum* 'want/need' (cf. 35):

45) a. enakku ava dān vēṇum 'I want only her.'
me-D she emph want/need-it

b. *enakku avaḷe tān vēṇum
me-D her-A emph want/need-it

(45) shows that *vēṇum* does not take an object and allows us to suppose that the NP in question is a subject. The absence of a feminine singular verb-agreement suffix on *vēṇum*, however, does not corroborate this. Nevertheless, this fact is not totally contradictory to the subject supposition, for there is at least one other true "defective" verb that is exempt from the verb-agreement rule: *uṇḍu* 'is/are' (cf. 2), a verb with neuter singular PNG derived from the root *uḷ* 'be', is used without change with human subjects also. *vēṇum* can perhaps be classed with *uṇḍu* in this regard.

The same test shows that *piḍikkum* 'like' (cf. 29), in contrast to *vēṇum* 'want/need', is similar to *teriyum* 'know' in providing evidence of the object nature of its "other NP":

46) a. enakku avane romba piḍikkum 'I like him a lot.'
me-D him-A much like-fu-it

b. enakku avan romba piḍikkum 'I like him a lot.'
me-D he much like-fu-it

Here, however, the accusative suffix is only optional even with human pronouns, the category of NP that is generally most explicit with regard to grammatical marking. This implies that the case-relational status of this NP is even more indeterminate than in the case of teriyum above. We cannot make a clear case for either the object or the subject status of this NP as these grammatical relations are normally defined within the language. It is not a normal object because the use of the accusative case marker is not consistent with the normal pattern. It is not a normal subject because even when it is a human NP the verb never has human PNG suffixes (but see the remarks above about vēnum), and moreover, the fact that it can occur at all in the accusative case would seem to be contradictory to an analysis as subject. It is not clear whether there are any grounds for claiming that the use of nominative vs. accusative reflects a semantic difference analyzable as the perception of a subject vs. object relation in different occurrences of the same verb. Such a conclusion is not suggested by the somewhat casual observation of these sentences done so far, but in order to be certain a careful study of semantic contexts in correlation with case use would be necessary.

Another type of sentence whose nominative NP might appear to be a subject is one involving the verb valli 'hurt' as in (47):

47) enakku taic valikkudu 'I have a headache.'
me-D head hurt-pr-it

This sentence might appear to be accurately translated literally:

"To me the head hurts." However, an alternative way to express (47) is (48),

48) enakku taleye valikkudu 'I have a headache.'
me-D head-A hurt-pr-it

in which the explicit accusative indicates either that tale 'head' is an object in both (47-48) (the accusative marking being non-obligatory for non-human nouns, as will be recalled), or that it is a subject in (47) and an object in (48) (with the implication that the semantic nature of the verb vali 'hurt' is flexible enough to allow the conceptualization of a body part as either its subject or its object). A possible corroboration of the latter suggestion is the semantic differentiation obtaining in the accusative vs. the nominative version of (49):

49) a. enakku vayitte valikkudu 'I have a stomach ache.'
me-D belly-A hurt-pr-it

b. enakku vayiru valikkudu 'I am having labor pains.'[5]
me-D belly hurt-pr-it

This semantic difference might be accounted for by the supposition that labor pain is conceptualized as the "doer" of the hurting, as opposed to ordinary stomach pain which is conceptualized as being the "victim" of the hurting phenomenon. On the other hand, this semantic differentiation is not necessarily inconsistent with a conclusion that both are indeed objects, for there are other cases of semantic specialization of an unmarked NP which is unambiguously an object--- for example, poṇṇu pāṛ [poṇṇu 'girl', pār 'see'] 'see a bride-prospect', as in (76) below.

A further example of the potential object-hood of body-part nouns in association with body-sensation verbs is the fact that (27), which normally has no second NP at all, can be alternatively expressed (with stronger force) with the addition of vayiru 'belly' in the accusative case:

50) enakku vayitte pasikkudu
me-D belly-A be hungry-pr-it
'I am real hungry./I have hunger pangs.'

The nominative version also occurs and has a semantic force somewhere between (27) and (50):

51) enakku vayiru pasikkudu 'I am quite hungry.'
me-D belly be hungry-pr-it

Some other examples

Among the subjectless sentences above involving dative NP's were a few (30-33) whose other NP constituent is adverbial in nature. Compare (33) to (52):

52) avanukku kōbam vandadu 'Anger came to him/He got angry.'
him-D anger come-pa-it

By the use of the adverbializing suffix -ā, the NP that is the subject of the sentence in (52) is converted to a descriptive function in (33). The difference in meaning is subtle and difficult to display through English, but an instructive parallel is the difference between the roles of rain (subject) and rainy (descriptive) in "There is rain in Kerala" and "It is rainy in Kerala", respectively. What is significant is that this loss of the subject relation between the verb and some NP does not render the Tamil sentence unacceptable, since as we have seen, it is neither a semantic nor a syntactic prerequisite for sentence-hood in Tamil.

Some examples of this type have locative NP's rather than datives:

53) kēraḷattule romba maẓeyā irukku
Keraḷa-L much rain-adv be-pr-it
'It is very rainy in Kerala.'

54) tōṭṭattule romba maramā irukku
garden-L much tree-adv be-pr-it
'The garden is full of trees.

Here, too, the grammatical relation of each NP is directly reflected in its suffix and none of them is the subject relation.

Finally, I have come across a type of sentence that perhaps belongs in the subjectless category. The following example was provided by K. Paramasivam:

55) ēn ippaḍi īccērule ongaḷe keḍattiyirukku?
why this way easy chair-L you-A make lie,be-pr-it
'Why must you lie like this in the easy chair?'

In spite of the fact that the morphology of this sentence includes a transitive verb (keḍattu 'make lie') that normally has a subject, and that therefore a literal rendering would be something like, 'Why has [subject?] made you lie in the easy chair like this?", semantically (according to K. Paramasivam) there is nothing that fills the role of subject, not even an indefinite notion like "something". Rather, the sentence evokes an environmental or situational feeling similar to sentences like (53-54). As in the case of teriyum 'know', some semantic drift may have occurred here away from an original sense with an indefinite subject felt more strongly.

Nested case relations

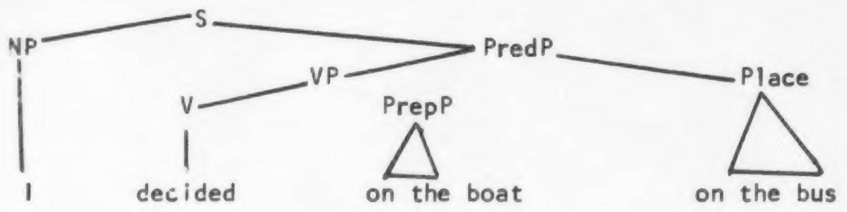
It has been previously noticed (e.g., by Chomsky)[6] that certain adverbial or prepositional phrases relate grammatically to the rest of the sentence potentially on more than one level. To take Chomsky's classic example, (56) is ambiguous:

56) I decided on the boat.

In one interpretation the boat is the place in which the decision was made, and in the other the boat is what was decided upon. Regardless of the details of the analysis (such as whether the verb should be treated as *decide* or rather *decide on*), it is clear that *on the boat* is both semantically and syntactically more integrated with the verb in the latter interpretation than in the former. Chomsky proposed to represent this situation by including the phrase within the VP constituent for the more integrated meaning, and within the Predicate Phrase constituent but outside the VP constituent for the less integrated meaning. Thus, it is possible to have both types of phrase in a single sentence, as when I say (57) in reporting where I was when I decided to buy a boat:

57) I decided on the boat on the bus.

Chomsky would attribute the following structure to this sentence:



Some similar examples, in which the case-relational equivalence of the phrases on the different levels is even clearer, are the following:

58) He put bullets in his pistol in the saloon.

59) He wrote on yellow paper on a green desk.

60) He teaches in the morning only in the summer quarter.

61) I have made hand-outs for you for the sake of clarity.

The essential nature of these cases is that there is one NP in a certain case relation to the verb and in addition another NP that is in the same case relation to the complex formed by the verb and the former NP together. I will call this situation the "nesting" of case relations.

The cases of this phenomenon that have been noticed have all involved the oblique case relations (that is, those other than the "primary" relations of subject and object). This is why it has been possible to accommodate their representation into a distinction between VP and PredP constituents or similar scheme of constituency inclusion/exclusion (e.g., the representation of adverbs as "higher predicates"): only obliques like locatives, datives, etc.[7] are free to show up either within a VP or a PredP, since unlike subjects and objects they are not defined (in the standard transformational theory) in terms of the VP or PredP constituent by specific phrase structure rules. For example, according to the standard theory there can be only one object in a sentence because the object is by definition that NP which [illegible] a VP constituent with a (transitive) V and therefore [illegible] outside of the VP as an independent constituent of the PredP.

As is clear from what has been said above, my interpretation of case relations is quite different. In fact, I would like to present some Tamil sentences which I believe show that the phenomenon of nested case relations is a general one throughout the case system---in particular, that subjects and objects also participate in it. These are sentences, then, in which there are two subjects or two objects: one is the subject or object of the verb itself, and the other bears that same case relation with the complex formed by the verb and the first NP.

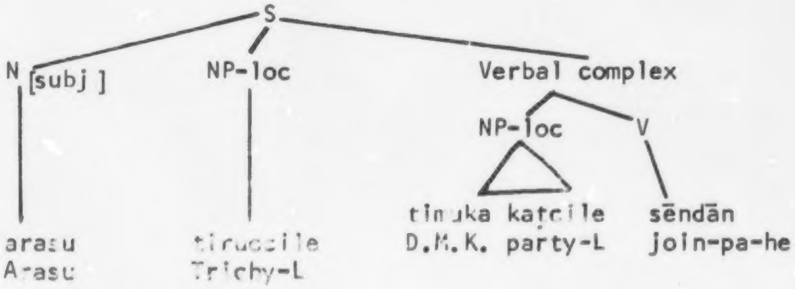
To illustrate first some examples of the nesting of "oblique" case relations in Tamil consider (62-64):

62) arasu tiruccile ti mu ka kaṭcile sēndān
Arasu Trichy-L D. M. K. party-L join-pa-he
'Arasu joined the D.M.K. party in Trichy.'

63) tīpāvaḷikku pasangaḷukku inippe koḍuppōm
Deepavali-D children-D sweet-A give-fu-we
'We give children sweets for Deepavali.'

64) amerikkāvule cinna vayasulerundē appāṭṭerundu piriyirānga
America-L small age-Ab-emph father-Ab separate-pr-they
'In America they move away from their fathers even from an early age.'

In each of these the same case relation occurs twice, each one relating to the proposition on a different level: one relates very closely to the verb, forming a verbal (i.e., that which predicates an event or activity) complex to which the other relates as a whole. This can be visualized as follows:



What this description means is clear, I think, from this and from the English glosses for these sentences, the only difficulty being the occasional Tamil vs. English difference in the case notion used for a particular verb (e.g., sēr 'join' taking a locative vs. join taking an object). Thus, the locative referring to the D.M.K. relates directly to the verb sēr 'join', indicating that "in" which Arasu joined (i.e., into which he entered), while the other locative relates to the whole complex (the act of joining the D.M.K.), indicating where that act took place.

The semantic nature of the following, however, will be more difficult to perceive since the nesting of objects and subjects that they represent is not permitted by English structure and therefore the glosses cannot be structurally literal.

Nested objects

The following are examples of nested objects: the leftmost accusative NP (for clarity's sake, examples have been chosen so that the outer object is always explicitly marked for accusative) is in object relation to a "verb" (i.e., a verbal complex) made up of a lexical verb in conjunction with another NP functioning as its "inner" or immediate object:

65) enne tondaravu seyyādē 'Don't bother me.'
me-A bother do-neg-imper

66) avaḷe kēli senjān 'He made fun of her.'
she-A ridicule do-pa-he

67) vēleye rājināmā senjān 'He resigned his job.'
work-A resignation do-pa-he

68) ide rippēr paṇṇu 'Repair this.'
this-A repair do

69) ide rusi pāru 'Taste this.'
this-A taste see

70) avane kuttam connā 'She accused him.'
him-A fault tell-pa-she

71) teru caṇḍeye vēdikke pāttān 'He idly watched the street
road fight-A spectacle see-pa-he fight.'

72) mahale paḍam varenjēn 'I drew a picture of my daughter.'
daughter-A picture draw-pa-I

73) avane kēḷvi kēṭṭēn 'I asked him a question.'
him-A question ask-pa-I

74) avane paẓi vānguvēn 'I will get revenge on him.'
him-A blame receive-fu-I

75) māmiyāru avale vēle vānguanā
mother-in-law she-A work receive-pa-she
'The mother-in-law got work out of her.'

76) avan mēriye poṇṇu pāttān
he Mary-A girl see-pa-he
'He called on Mary as a bride-prospect.'

Some of these examples (especially the earlier ones with sey 'do') might appear to some to be better analyzed as containing idiomatic phrasal verbs with a single object (the accusative NP), the argument being that there is nothing wrong with having a morpheme combination like rippēr paṇṇu serve as a single verb lexeme 'repair' in the same way that noun compounds like blackbird serve as single noun lexemes. The latter argument is quite valid in principle, but to use it to account for these cases is incorrect. This is demonstrated by the fact that when the semantics of the situation justifies it, the inner object itself (which in most cases is unmarked for accusative for reasons mentioned earlier) appears in the accusative form. The semantic motivation for the appearance of this accusative, of course, is the intention of definite reference, as in (77-79):

77) a. nān avane paṇam kēttēn 'I asked him for some money.'
I him-A money ask-pa-I

b. nān avane paṇatte kēṭṭēn 'I asked him for the money.'
I him-A money-A ask-pa-I

78) gīḍāve anda kōratte yāru paṇṇunānga?
Gita-A that ugly thing-A who do-pa-they
'Who did that ugly thing to Gita?'

79) moraḍanga oru payyane kāle oḍiccānga[8]
ruffians one boy-A leg-A break^{t}-pa-they
'Some ruffians broke a boy's leg.'

The occurrence of case markings on these NP's proves that they do not form a lexemically single entity in conjunction with the verb but are rather in a syntactic relationship to it, and the occurrence of the accusative case in particular proves that that syntactic relationship is an object relation.

Corroboration for this is available from other evidence for the syntactic nature of the inner NP's relationship to the verb. It can have its own modifier, as in (80):

80) maṇi enne adē kēḷvi kēṭṭān
Mani me-A the very question ask-pa-he
'Mani asked me the very same question.'

It can be replaced by an interrogative noun, as in (81-82):

81) avan ongaḷe enna kēṭṭān? 'What did he ask you?'
he you-A what ask-pa-he

82) jān avaḷe enna senjān? 'What did John do to her?'
John she-A what do-pa-he

It can be replaced by a universal quantification (the inclusion morpheme -um suffixed either to the numeral one or an interrogative noun) that has semantic relation to a sentential negation, as in (83):

83) nān avaḷe oṇṇumē seyya māṭṭēn
I she-A one-incl-emph do-inf won't-I
'I wouldn't do anything to her.'

Finally, if reference to the verbal notion in these sentences is repeated in the following sentence, only the verb need be used---

which is consistent with the general principle of anaphoric clause abbreviation:

84) enne kēll paṇṇa kūḍādu. paṇṇunā, onne aḍippēn
me-A ridicule do-inf mustn't do-if you-A strike-fu-I
'You mustn't make fun of me. If you do, I'll hit you.'

This confirms that the verb and inner object do not form a single (phrasal) verb lexeme.

Nested subjects

This is a type of nested case relation that is probably even more difficult to accept as such at first. Let us consider first a classic example that the Tamil grammatical commentators themselves were concerned about.[9]

85) a. avan muham malarndadu [FTa] 'His face bloomed.'
he-(G) face bloom-pa-it

b. avanukku muham malarndadu 'His face bloomed: he felt pleasure.'
him-D face bloom-pa-it

c. avan muham malarndān 'He face-bloomed: he felt pleasure.'
he face bloom-pa-he

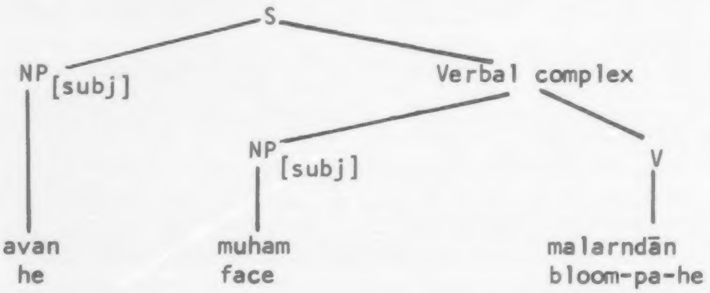
d. ?avan muhattil malarndān ?*'He bloomed in the face.'
he face-L bloom-pa-he

e. *avan muhattai malarndān *'He bloomed his face.'
he face-A bloom-pa-he

(85a-b) are straightforward: muham 'face' is the subject of the intransitive verb malar 'bloom'' in both (avan 'he' in 85a is an unmarked genitive), as indicated by the non-human verb agreement. The verb-agreement suffix in (85c), on the other hand, shows that avan 'he' is its subject. Where does that leave muham? In discussing this question, under the topic of "overlap of case usage" (vērrumai mayakkam), the commentators argue that muham is a covert locative. However, although it makes some sense to say that in this expression the face is the locus of the evidence of pleasure that is being compared to the blooming of a flower, the meaning of the sentence is not such that could reasonably be explained by treating *muham* as a locative. This is indicated by the questionable acceptability of (85d), a sentence the commentators use somewhat uncritically in proposing their analysis of (85c). Is there another alternative? (85e) disconfirms any suggestion that *muham* might be an unmarked object: *malar* does not have a transitive sense.

What seems closest to the meaning of (85c) is an analysis in which *muham* is considered the inner subject of *malar* and in turn the phrase *muham malar* 'face blooms' serves as the "verb" (i.e., verbal complex, in the sense used above) of which *avan* 'he' is the subject ---thus, an accurate literal translation would be on the order of "He face-bloomed". This would explain why the nominative is the only natural case form for *muham* 'face' in (85c).

To the extent that formal phrase structure rules are taken to be fundamental matters of linguistic structure, this proposal involves the unorthodox implication that a constituent combining a subject and a predicate (presumably an "S") is capable in the right circumstances of itself functioning as a predicate (presumably a "VP")---in other words: VP ---> S. Or to diagram it in terms of nested case relations, we have:



Nevertheless, this appears to me to capture the meaning of (85c) in the most natural way, and moreover, given that there is no a priori reason for the subject relation *not* to enter into a nesting pattern, this analysis allows nested case relations to be treated as a phenomenon generally applicable to all Tamil case relations without unnatural restrictions.

A similar case involves *nimir* 'straighten', one of those Tamil verbs that can be used either intransitively or transitively correlated with a difference in the inflectional morphology:

86) a. avan tale nimindadu 'His head straightened up.'
he-(G) head straighten^{i}-pa-it

b. avan tale nimindān 'He lifted his head.'
he head straighten^{i}-pa-he ['He head-straightened.']

c. *avan taleye nimindān
he head-A straighten^{i}-pa-he

d. avan taleye nimittunān 'He lifted his head.'
he head-A straighten^{t}-pa-he ['He made his head straighten.']

As in the previous case, (86a) shows that *tale* 'head' is a normal subject for intransitive *nimir* 'straighten^{i}'. (86b) is thus another example of nested subjects: *tale* is the inner subject of *nimir*; *avan* is the outer subject of *tale nimir* 'head straightens' together and motivates the masculine singular verb-agreement suffix. (86c-d) again demonstrate that *tale* is not a covert object of *nimindān*, in spite of the English gloss: in contrast to intransitive *nimindān*, transitive *nimittunān* must be used if *tale* is to be an object. There is, as one would expect, a corresponding semantic difference between (86b) and (86d), which the English glosses are not able to reproduce: the transitive version implies that there was some extra effort or volitional involvement on the part of the subject---i.e., the subject had to "act" on the head, as opposed to it being a natural, almost involuntary movement in the previous case.

Some further examples of nested subjects are the following:

87) avan kaṇṇu kalangunān 'He became weepy-eyed.'
he eye become muddled-pa-he

88) en ariyāmekku manam varundunēn
my ignorance-D heart/mind sorrow-pa-I
'My heart grieved at my ignorance.'

89) avan kaṇṇu oḷi mangi pōccu
he eye light dim, go-pa-it
'His eyes have lost their lustre.'

90) avan oḍambu melinju pōnān
he body get thin, go-pa-he
'He has gotten thin of build.'

91) ava piḷḷe uṇḍānā 'She became pregnant.'
she child come to be-pa-she

92) marīnāvil kūṭṭam alai mōdiyadu [news report]
Marina-L crowd wave dash-pa-it
'The Marina was very crowded.'

93) a. en manam alai pāyhiradu [FTa]
my heart wave surge-pr-it
'My heart is troubled.'

Cf. b. kaḍalil alai pāyhiradu 'The waves are surging in the sea.'
sea-L wave surge-pr-it

94) en vāẓkke some korenjadu
my life burden reduce^{I}-pa-it
'My life lessened in burdens.' ['My life burden-lessened.']

In this last example the non-human verb-agreement does not guarantee that *en vāẓkke* 'my life' is indeed the outer subject of a nested subject sentence, since it could be claimed that the verb agrees with *some* 'burden' and *en vāẓkke* is simply an unmarked genitive, the sentence thus meaning, "My life's burdens lessened." But something else provides that proof for us: if en vāẓkke were in a genitive relation to some, an attributive-noun sandhi rule would operate to geminate the initial obstruent of some, resulting in (95):

95) en vāẓkke come   korenjadu   'My life's burdens lessened.'
    my life-burden   reduce-pa-it

Thus, (94) cannot be analyzed as meaing "My life's burdens lessened" and must indeed be an example of a nested subject sentence. As this structural difference would entail and the English glosses try to imply, there is in fact a subtle semantic difference between (94) and (95).

In the case both of these nested subjects and of the earlier nested objects, it must be admitted that their number is not very large: I have listed most of the clear cases that I am aware of. In particular, one cannot randomly generate sentences of this type and expect them to be acceptable Tamil sentences. The conditions on the semantic naturalness and cohesion of the entities mutually involved in a nested case relation sentence seem to be quite strict. For example, one cannot take the subject-verb combination pallu utindadu 'teeth fell out', add a human noun as outer subject, and come out with something grammatical:

96) *keẓavan pallu utindān   'The old man...his teeth fell out.'
    old man tooth fall out-pa-he

What restriction this fact imposes on the nature and status of these patterns as structural possibilities in Tamil grammar I don't know. Nonetheless, I present these data to you in terms of the notion of nested case relations since I believe it to be the most natural and plausible way so far apparent to interpret them.

FOOTNOTES

[1] The examples are representative of an informal spoken Tamil [STa] used by a large number of educated middle-class people in the urban areas of Tamilnadu (especially Madurai). Examples from formal Tamil [FTa] will be noted when used. The standard for questions of grammaticality and usage has been the speech of K. Paramasivam. I am grateful to him for checking the acceptability of these examples and for many fruitful discussions. The transcription used is systematic but is not intended to be phonemic. The dropping of final nasals and the nasalization of the preceding vowel are not indicated. The symbol "ẓ" stands for the retroflex continuant. Superscript "i" and "t" stand for "intransitive" and "transitive", respectively. A comma in the gloss stands for an adverbial participle. Other abbreviations and symbols should be familiar and self-explanatory.

[2] The vocative case is excluded since it does not enter into the network of grammatical relations within a sentence.

[3] The basic Tamil gender distinction is between "rational" and "non-rational", but instead of these terms I will use the more familiar ones of "human", "non-human", "neuter", etc.

[4] Since writing this paper I have learned that there are Tamil speakers for whom (38b) is as acceptable a sentence as (38a) is. (I am grateful to V. Fedson for this information.) The variability in use of case forms between speakers adds a further dimension to the indeterminacy

of the case-relational nature of unmarked NP's in these dative-type sentences, as remarked upon below.

[5] According to V. Fedson, there are speakers for whom this sentence is not semantically specialized in this way. For them, (49b) can refer to any stomach pain.

[6] Noam Chomsky, Aspects of the Theory of Syntax (Cambridge: MIT Press, 1965), p. 101ff.

[7] Chomsky's rules (op. cit.) actually allow only Place and Time adverbials to occur in the PredP constituent and therefore fail to account for other cases of nesting.

[8] Some Tamil speakers do not accept this as a possible sentence.

[9] This information was provided by K. Paramasivam.

Dative Subjects in Malayalam

by

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As with many traditional grammatical concepts, the notion of subject has rarely been defined in a manner which is not highly language specific or a tautology. Malayalam has a set of dative case usages where the dative is clearly not a indirect object or a locative and is closely associated with the verb semantically. In these constructions there is no noun in the nominative case which is unambiguously the subject, and often there is no noun in the nominative at all. These constructions have traditionally been discussed as dative subjects, and they do have some of the formal trappings of subjects such as functioning in equi-NP situations the same as any unambiguously nominative subject. Some tests such as passivization are not possible for these sentences.[1] These data from Malayalam push very hard on the limits of the notion of subject. Some of the forms presented here are probably not subjects, at least from all viewpoints. The data presented here revolve primarily around the use of the dative case in the surface grammar of Malayalam and its semantic content.

Malayalam inherited from Proto-South-Dravidian at least two constructions in which the surface subject appears in the dative rather than the nominative case. The first is the dative of possession, the "to me--there is" construction used to express the concept of inherent ownership. This construction is found throughout South Asia and large parts of the rest of the world. Only in the environment of Malayalam grammar does this construction appear to function with a dative subject. Even there, it is not clear if this dative construction is a dative subject or not. However, it does have several major indications that it may be considered as such.[2] The other inherited dative subject construction involves what can be called modal verbs. These verbs express the speaker's attitude toward a nonexistent event. This group is best described by its most common attestation, *veeṇam* 'want, should' and its cognates Tamil *veeṇṭum* and Kannada *beeku*.

The loss of personal endings in Malayalam and the resultant loss of concord removed the major surface syntactic constraint which was the defining attribute for the subject in Malayalam. Since now both a nominative and dative subject have the same lack of agreement, there has been a tendency to expand the use of dative subjects in the surface grammar of Malayalam.[3] Modern Malayalam does not have the relatively clear cut criteria for the use of dative subject constructions that exist in Modern Tamil. Some uses of dative subject constructions enter that nebulous area where all native speakers do not agree on their acceptability. This is in part complicated by the fact that the dative case in Malayalam retains a broader range of usages (such as a productive locative) not found in other modern South Dravidian languages.

This paper examines the various dative constructions in the surface grammar of Malayalam in which the dative case is not an indirect object or a locative and in which it has at least some formal aspects of being a subject and there is no other noun more closely associated with the verb. Some of the parallels with other Dravidian and South Asian languages are pointed out along with the developments that have taken place in Malayalam. The general semantic content of these dative subject constructions is also discussed.

The dative ending in Malayalam varies between -kkụ, -ụ, and -inụ in a rather complex manner based on the phonological form of the word. The dative endings are always underlined in the transcription.

1.
avanụ śakti uṇṭụ.[4]
him-to strength is
He has strength/He is strong.

2.
aa striikkụ bhangi uṇṭụ.
that woman-to beauty is
That woman is beautiful.

3.
addeehattinụ paṇam uṇṭụ.
him(hon.)-to money is
He has money/He is rich.

4.
pasuvinụ oru kuṭṭi uṇṭụ.
cow-to a calf is
The cow has a calf.

5.
avanụ oru poṭṭiya kaal-uṇṭụ.
him-to a broken leg is
He has a broken leg.

Sentences 1-5 give examples of the most familiar construction using a dative subject. This is the use of the dative plus the verb of existence, uṇṭụ to express inherent possession. This constrction is restricted to inherent and essentially inalignable things and qualities, family or other kin-like relationships, and situations viewed as permanent. These sentences contrast with other constructions without the dative case which deal with non-permanent situations. This type of sentence is found throughout South Asia and is nothing particularly noteworthy except for its interaction with other dative case uses in Malayalam.

However, the next group of sentences (6 - 12) gives examples of an expansion of the possession construction, an expansion very typical of Malayalam. Malayalam has an extensive and rather elaborate set of contrasts built around whether the verb of identity, *aaṇụ*, or the verb of existence, *uṇṭụ*, is used in a given construction.[5] While not going into all the ramifications of these two contrasting verbs, one of the primary distinctions involves a contrast between statives and nonstatives. Statives describe permanent or steadily ongoing situations and use the verb *aaṇụ* while nonstatives describe temporary or changeable situations and use the verb *uṇṭụ*. This stative-nonstative contrast is applied to the possession constructions when a physical condition is involved, i.e. a situation over which the subject has little or no concious control, but which can be quite changeable.

6.
ninaḷkkụ sukham aaṇoo?
you-to health is/becomes?
Are you well?/How do you do?

7.
ninnaḷkkụ sukham uṇṭoo?
you-to health is/exists?
Are you well?/Have you recovered?

8.
avaḷkkụ pani aaṇụ.
her-to fever is/becomes
She has a fever (not a cold)

9.
enikkụ pani uṇṭụ
me-to fever is/exists
I have a fever (now)

10.
enikkụ eppooẓum viśappu aaṇụ.
me-to always hunger is/becomes
I am always hungry.

11.
avanụ daaham-uṇṭoo?
him-to thirst is/exists?
Is he thirsty (at the moment)?

12.
enikkụ viśakkunnu.
me-to be hungry
I am hungry

The nonstative use of *uṇṭụ* in these sentences is probably a different underlying verb than the verb *uṇṭụ* used in inherent possession. Sentence 12 is an interesting extension of this system. This sentence, which is semantically equivalent to *enikkụ viśappuṇṭụ*, has a full verb which requires its subject to be in the dative. Parallel constructions exist in Tamil.

13.
avanụ ippooḷ pattụ vayassụ aayi
him-to now ten years-of-age became
He is now ten years old

14.
eetaantụ ii peenaykkụ
pattụ ruupaa aakum
approximately this pen-to
ten rupees will-be
This pen will cost about
ten rupees.

15.
avaḷkkụ orụ kattụ kiṭṭi
her-to a letter is-obtained
She got a letter.

16.
kariñña aaẓca enre sahoodaranụ orụ putiya jooli kiṭṭi.
past week my brother-to a new job is-obtained.
Last week my brother got a new job.

In a few situations the stative aspect of these constructions with *aaṇụ* (base form *aakuka*) seems to have moved into other semantic areas as in sentences 13 and 14. Similar usage is found with the verb *kiṭṭuka* 'to be received' as in sentences 15 and 16. In these sentences it seems possible to analyse them as stative dative subject sentences on the model of the proceeding group. However, these sentences may involve a normal use of the dative with other words the formal subjects. It is not clear.

Assuming that all of these surface constructions do involve a dative subject, what, if anything, can be said about these constructions as a unit? The clearest thread that runs through them all is a semantic one; in no case are these datives *agents* to use Fillmore's terminology. In no case do these subjects instigate or conciously control the event of the verb. Rather, they are the passive recipients of some action event or situation beyond their active control. These dative nouns are *-concious choice*. Nevertheless, they are the nouns most intimately associated with their verbs (and occasionally the only such noun). They control pronominalization particularly the use of resumptive (also called reflexive) pronouns as do agentive subjects, and they occupy the same position in an unstressed sentence as a more usual subject. Thus, while being true nonagents and experiencers, they do have a claim to be subjects.

The second major variety of construction employing a dative subject is the modal verb. However, there is a transition group which are semantically modals but are syntactically nouns in the type of construction discussed above. It is common to have semantically nearly identical sentences, one with a noun plus *aaṇụ* or *uṇṭụ* and the other with a full modal verb.

17.
avaḷkkụ ayaaḷe iṣṭam-aaṇụ
her-to him-acc. liking is
She likes him.

18.
aval ayaaḷe iṣṭappeṭunnụ.
she him-acc. likes
She likes him.

19.
avaḷkkụ ayaaḷootụ sneeham-aaṇụ
her-to him-with love is
She loves him.

20.
valippinakattuḷḷatụ enikkụ
veeṇam.
drawer-inside-being-one
me-to want
I want the one in the drawer.

21.
ninre kaaśumkiiśum enikku veeṇṭa
your small-change-(etc.) me-to is-not wanted
I don't want your (damn) money.

22.
naaḷe enikkụ orụ saykkiḷ veeṇam/aavaśyam-uṇṭụ.
tomorrow me-to a cycle want/desire is
I want a cycle tomorrow.

Note that in sentence 17 avane 'him' occurs in the marked accusative just as in sentence 18 which has the equivalent full verb with a nominative subject. Sentence 19 has the "object" in the associative case. Sentences 20-22 demonstrate the use of the simple modal verb, veeṇam, with dative subjects. In 22 the verb and the noun plus uṇṭụ are full equivalents; both have a dative subject.

The modal verbs are commonly joined as an auxiliary to another verb. In this case the main lexical verb appears in the supine (a variety of infinitive ending in -aan) followed by the modal auxiliaries. These modal auxiliaries are morphologically distinct in that they function on an archaic two tense system (past-nonpast) rather than the usual three tense system and have idiosyncratic forms for their nonpast negative.[6] These modal verbs appear in two main groups along with some minor ones. The main groups are the desideratives (the verb aagrahikkuka and its equivalents; see sentence 23) and the potentials (the verb kaẓiyuka and its numerous equivalents; see sentences 24-26).

23.
aviṭe enikkụ pookaan aagrahikkum.
there me-to to-go want
I want to go there.

24.
avanụ naaḷe varaan parrum/kaẓiyum.
him-to tomorrow to-come can/can
He can come tomorrow.

25.
enikkụ innụ eẓutaan vayya.
me-to today to-write cannot
I cannot write today.

26.
innale enikkụ skuuḷil pookaan kaẓiññilla/saadhiccilla/vayya.
yesterday me-to school-in to-go could-not (all 3)
I could not go to school yesterday.

27.
enikkụ malayaaḷattil samsaarikkaan ariyilla.
me-to Malayalam-in to-speak know-not
I do not know how to speak Malayalam.

28\.
Ñaan avane *aṟiyum.*
I him-*acc.* know
I know him.

An interesting addition to this group is the verb *aṟiyuka* 'to know' which as a modal auxiliary takes a dative subject, means 'know how to', and takes the special morphology of the modal auxiliaries (*aṟiyilla* instead of *aṟiynkayilla*; see sentence 27). This is in contrast to the normal use of this verb with a nominative subject as in sentence 28. This use of *aṟiyuka* is interesting in that it parallels the use of the verb *teri* in Tamil in the use of a dative subject for modal usages. This seems to be parallel evolution rather than a cognate feature.

However, it is with another group of modals that the full development of modal verbs takes place in Malayalam. Malayalam... has lost all independent function at the old infinitive in -*a*. For the main group of modal auxiliaries this has led to the fusion of the former infinitive plus modal verb into a simple modal ending, i.e. OMa. *ceyya veeṇam* ('want to do') has become *ceyyaṇam.* Similarly verb of identity, *aakum,* used as a full modal auxiliary has become the ending -*aam*.

For the desiderative ending -*aṇam* its origin as an independent modal auxiliary is still rather obvious. This modal properly speaking always takes its subject in the dative. However, when used with an infinitive, the infinitive can retain its own subject in the nominative. With the fusion this has led to a contrast in the case of the subject. When the subject is in the dative, it properly applies to the modal verb, and indicatives internal compulsion, i.e. 'wants to'.

This is opposed to the case when the subject is in the nominative, properly applies to the lexical infinitive, and indicates external compulsion, 'ought to'.

However, the case-usage with the potential ending in -*aam* is much more complex. With a dative subject, it can be used in any person to mean 'can' with the same ambiguity as in English, i.e. it can mean both 'physical ability' or 'permission'. This is shown in sentences 29-34. Sentence 34 demonstrates the deletion of the supine with these constructions.

29.
avanụ pookaṇamoo?
him-to go-want
Does he want to go?

30.
avan pookaṇamoo?
he go-must
Must he go?

31.
niṉṟe karaccilum piẓiccilum enikkụ keeḷkkaṇṭa.
your crying-and wringing-and me-to hear-not-wanted
I don't want to hear your crying and carry on so.

32.
avaḷkkụ avane iṭikkaam.
her-to him-*acc.* can/may-hit
She can hit him.

33.
ninakkụ akattu varaam.
you-to inside can/may-come
You may come in.

34.
enikkụ kuṟaccụ malayaaḷam aṟiyaam.
me-to some Malayalam know-?
I know a little Malayalam/ I know how [to speak] Malayalam a little.

The real complexity of the modal ending -*aam* becomes clearer in its usage with a nominative subject. In this case it is strictly restricted to the first person where it contrasts with the general future-habitual in -*um* and its own usage with a dative subject. Compare sentences 35-37. The future potential in -*aam* with a nominative subject always implies a concious choice. As such it often carries with it the idea of a promise as in sentence 38. It cannot be used with a verb which semantically rejects a concious choice; compare sentence 39 and 40 with 40 and 41. The -aam ending is also used with the dative to grant permission or make a suggestion; note sentences 43 and 44.

35.
ñaan kaappi kuṭikkum.
I coffee drink-(fut-hab.)
I drink coffee.
(Coffee is my usual drink)

36.
ñaan kaappi kuṭikkaam.
I coffee drink-(fut-pot.)
I (shall) drink coffee.
(I am willing if it is offered)

37.
enikkų kaappi kuṭikkaam.
me-to coffee drink-(fut-pot.)
I can drink coffee.
(The doctor said it is OK)

38.
ñaan naaḷettanne jooli tiirkkaam.
I tomorrow-itself work finish-(fut-pot.). I shall finish the work tomorrow (promise)

39.
ñaan ninne oormikkum.
I you-acc. remember-(fut-hab.)
I will remember you.

40.
*ñaan ninne oormikkaam.
I you-acc. remember-(fut-pot.)
[implies a conscious choice.]

41.
ñaan marikkum.
I die-(fut-hab.)
I will die. (all men are mortal)

42.
ñaan marikkaam.
I die-(fut-pot)
I am prepared to die.

43.
avanų pookaam.
him-to go-(fut-pot.)
Let him go.

44.
namukkų pookaam.
we-incl.-to go-(fut-pot.)
Let's go.

Is there a unity to this future-potential ending -aam? I believe that there is. Its use always seems to involve a concious choice in a either-or situation, i.e. it is always used in a fork-in-the road decision. If the choice has not been made, i.e. if both forks are possibilities, the subject must be in the dative. This is also true when a person is granted a choice (i.e. permission is granted). Again a dative is used. If, however, the choice has been made, the subject must be in the nominative. Nevertheless, to use the future-potential with the nominative always strongly implies the alternate possibility which was conciously rejected. Because statement of concious choice is something that a person can make only for himself, the restriction of the future-potential to the first person becomes an understandable semantic constraint.

Looking at these dative constructions as a whole, one recurrent theme emerges. A dative subject is nonagentive in the sense that the subject does not have or exercise concious control over a situation. This explicit statement of lack of concious control is often used to disavow responsibility. Even such constructions as the modal veeṇam meaning 'want' fit into this pattern since volition is not under concious control. One cannot simply decide to stop wanting something. An inalienable possession, right, relationship, quality, or situation is also not under the subject's complete discretion.

Thus, Malayalam seems to have several interrelated constructions where the noun which is most directly associated with the verb and which has at least some of the formal characteristics of subjects have a contrast between agentive subjects where the subject instigates, causes, or takes full responsibility for the action of the verb and where this subject is in the nominative; and between nonagentive subjects where the subject is not the ultimate cause of the action of the verb and where the subject is in the dative. Malayalam can be productively viewed as having at least two kinds of subjects which share most if not all of their formal characteristics. Nonagentive nominative subjects may constitute another group.

FOOTNOTES

[1] Any use of the formal passive in Malayalam is rare and somewhat artificial. When it is used it requires an agent subject and an accusative; conditions that are never met by dative subjects. Functionally, the passive is replaced by numerous agentless verbs. muṇṭụ maṭahhunnu. 'The cloth is folded'.

[2] Such as control of the resumptive pronouns. When the subject of a sentence is referred to again in the same sentence, a special resumptive pronoun (also called reflexive pronoun) must be used.

[3] This expansion in the use of the dative has come partly at the expense of other oblique case. The instrumental case which functions as a subject in Tamil and Kannada has been replaced in this usage by the dative in Malayalam.

[4] The transcription of Malayalam used here follows Asher. See fn. 5.

[5] See R.E. Asher. "Existential, Possessive, Locative and Copulative Sentences in Malayalam" pp. 88-111, John W.M. Verhaar (ed.), The Verb 'be' and its Synonyms, Part 2. Dordrecht: Reidel, 1968. Sentences 17-19 have been borrowed from this source. Except for the use of ụ instead of ə the transcriptions are the same.

[6] The negative marker illa is added directly to the stem rather than to the gerund in -uka. This is a colloquialism which has become standard usage as is aanu (formal aakunnu). The verb uṇṭụ is highly defective. The verbs used in these dative constructions are rarely completely normal.

From Passive to Ergative in Indo-Aryan

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The investigation of ergative constructions in a variety of languages has occupied the attention of a number of linguists in recent years. Along with relatively exotic specimens such as Basque, Georgian and Dyirbal, more familiar languages such as Hindi, Panjabi and Marathi have been discussed as examples of languages having ergative systems, even though these languages may not be as "deeply" ergative as some belonging to other language families.[1]

The ergative languages of South Asia include Marathi, Gujarati, Sindhi, Panjabi and Hindi-Urdu, but exclude the eastern Indo-Aryan languages such as Bengali, Oriya and Assamese. Iranian languages such as Pashto and Baluchi and the Dardic languages also exhibit ergative constructions, as do languages of the Caucasus and many Tibeto-Burman languages. The presence of ergative phenomena in so many languages which are distributed over an almost continuous area raises interesting questions about typology, especially since ergative systems are absent in eastern Indo-Aryan and Dravidian languages.[2]

Whatever may be the real significance of the occurrence of ergatives in Indo-Aryan languages, it is clear that they are an internal development within a certain subgroup of Indo-Aryan, fashioned from linguistic material already present in Old Indo-Aryan. Ergatives are rare in Indo-European languages outside of the Indo-Aryan and Iranian branches and we may assume that they were not inherited as such from older stages of Indo-European. Fortunately, there is an abundance of material from Old Indo-Aryan onwards which may furnish clues as to how, and to a lesser extent why, ergative systems developed in some modern Indo-Aryan languages. These clues probably apply to ergative Iranian and Dardic languages as well, but I certainly would not claim that ergative constructions in other language families have similar origin.

The constructions in modern Indo-Aryan which are described as ergative are all direct historical developments of passive verbal forms of Old Indo-Aryan (OIA), specifically the passive participle and the future passive participle (the gerundive). This is, of course, very well documented and it has been described in a variety of historical grammars of the modern languages, such as Beames (1879), Bloch (1914) and Chatterji (1926). However, these authors and others have described primarily the phonological and morphological changes which have taken place and have paid little attention to their wider implications for our understanding of the evolution of syntactic structures and processes in these languages.

The question to be asked here is this: Is there anything about the OIA passive and its subsequent development which helps explain the emergence of ergative systems? This paper attempts to identify several possibilities.

Indo-Aryan Ergative Systems

A concise definition of an ergative language is given by Johnson (1974, p. 276) in which an absolutive-ergative language is characterized as one in which the subject of an intransitive sentence and the object of a transitive sentence can be functionally identified in some manner. For Indo-Aryan languages, this functional identification appears to be limited to case markings (inflections or postpositions) and verbal agreement. Furthermore, ergative constructions occur only in past tense sentences and in sentences involving the gerundive. The latter express obligation/compulsion and translate "have to, should"; they have not usually been cited as examples of ergatives in previous studies. Other types of sentences in Indo-Aryan languages are of the usual nominative (nominative-accusative) type. Therefore, it is more appropriate to speak of ergative constructions or systems, rather than calling Indo-Aryan languages ergative or ergative-absolute as such. I hope, though, that a certain inconsistancy may occasionally be allowed in the matter of terminology.

The characteristics of Indo-Aryan ergative constructions may be summarized as follows:

1. They are restricted to past tense and gerundive sentences.

2. The subject of the transitive sentence (the agent) is marked by an oblique case form or by a postposition which may, but does not have to be, identical with the instrumental postposition. For example, Hindi-Urdu and Panjabi utilize postposition *ne* which is distinct from the instrumental marker *se* or (*ke*) *dvārā*; Marathi and Nepali use the instrumental postposition to mark the agent, *ne*/*ni* in the former, *le* in the latter. Sindhi marks the agent by the oblique case of nouns and pronouns--it has no agent postposition. Similarly, in Panjabi and Marathi certain pronouns occur in the oblique case as agents without the postposition which is required for the other pronouns and for all nouns.

3. Four types of verbal agreement are possible in transitive sentences.

a. The verb agrees with the object.
b. The verb agrees with the subject (agent).
c. The verb agrees with both the subject and the object.
d. The verb agrees with neither the subject or object.

Type (a) establishes the sort of functional identity (verbal agreement) between the subject of intransitive sentences and the object of transitive sentences which is a defining characteristic of ergative constructions.

Type (d) is complementary to (a) and applies when the object is given specific reference by the occurrence of the object postposition. The verb appears in a form which is identical to the neuter singular in languages with three genders (masculine, feminine, neuter) and to the masculine singular in two-gender languages. Hindi-Urdu, Panjabi and Sindhi are prominent examples of languages exhibiting type (a) and type (d) agreement.

Type (b) is illustrated by Nepali and Old Awadhi among languages with ergative constructions. It is, of course, the only type of agreement in non-ergative constructions and languages.

Type (c) is not common, but is found as an alternative in Old Awadhi. An example is the verb form kahiũ "I said" which agrees with the subject (agent) "I" and also with an object which is a feminine noun; the form would have been kaheũ if the object were masculine. Sindhi has an elaborate system of pronominal enclitics which attach themselves to verb forms and which must be distinguished from verbal agreement as such.[3]

4. The agent of the gerundive construction in Panjabi and Marathi is marked in exactly the same way as the agent of past transitive sentences while in Hindi-Urdu the agent is marked by the object postposition _ko_. The evidence from Panjabi and Marathi and the fact that the verb agrees with the object suggests that this construction should be classified as a further example of an ergative system, at least for some Indo-Aryan languages.

The Passive in Old Indo-Aryan

In the discussion of Old Indo-Aryan (OIA), examples and data will be taken from Sanskrit grammars and texts while the theoretical framework will be the ideas of relational grammar, as it is being developed by, for instance, Keenan (1975) and Johnson (1974, 1975). Stated in terms of the relations of subject and object, a general passive rule demotes the subject to an oblique form, promotes the object to subject and may require a movement rule which shifts the positions of the ex-subject and the ex-object (the new subject).

In OIA, the passive rule appears to operate along the following lines:

I. _Passive is not a movement process_, that is, the operation of passive leaves the order of the constituents unchanged. The question of what is the basic word order in OIA (i.e. Sanskrit) has been discussed at length by Staal (1967) who states (p. 60): "Almost all Indian theorists did, either implicitly or explicitly, regard word order as free." On that same page he refers to both the Indian and Western approaches and says that they: "...agree however in that, on the whole, word order has _no grammatical significance_" (emphasis in the original).

In referring to passive transformations, Staal (1967, p. 75) states:

> "Passivization itself, in Sanskrit or Latin, cannot be described in terms of strings either, if it is to be described in a natural and not counter-intuitive way. In Sanskrit, *rāmo govindam apaśyat* 'Rama say Govinda', and each of its five permutations, is grammatical, and no particular one is optimal. But each of the permutations of: *adṛśyata rāmeṇa govindaḥ* 'Govinda was seen by Rama', is equally grammatical and is the Passive of each of the former group of six."

If a passivization rule is, however, stated in terms of grammatical relations, it is then independent of any underlying ordering of Subject, Object and Verb.

Although word order in Classical Sanskrit was remarkably free--at least in the texts which are our chief source of knowledge, apart from the statements of grammarians--it is unlikely that there was no basic ordering of the fundamental NPs expressing the relations of Subject, Direct Object and Indirect Object. Certainly, a basic word order can be discerned for most other languages. Because the modern Indo-Aryan languages are S O V languages, it is reasonable to impute the same order to OIA. Therefore, the passive rule may be expressed as:

Subject - Object - Verb ---> Instrumental - Subject - Verb

2. *Demotion of subject*. The subject of the transitive sentence is usually not deleted and appears in the instrumental, or occasionally, the genitive case. Intransitive sentences may also be passivized, in which case the subject is demoted to the instrumental case and the verb shows neuter singular agreement. For example,

(1)	tvayā	gamyatām	
	by-you (in)	let-it-be gone	"Please go."

The fact that intransitive sentences may be passivized in OIA is further evidence for preferring a demotional analysis of passivization, rather than a promotional one, since in this sentence there is no object available for promotion (Keenan 1975).

3. *Promotion of object*. The object NP becomes the new subject and hence enters into agreement with the verb. The complications of type (d) agreement do not come about until the early modern stages of these languages. In effect, the occurrence of the object postposition after the ex-object (the new subject) demotes it to oblique status thereby severing all grammatical ties with the verb and accounting for the nonagreement. This is perhaps an inaccurate statement, for the concepts of demotion and promotion refer to passive transformations and what we have in the modern languages are ergative constructions.

The effect of subject and object markers, such as Hindi-Urdu *ne* and *ko*, on grammatical relations needs to be studied further; perhaps they are not true postpositions, if the function of a postposition is to mark a NP as being oblique (see Comrie 1973).

4. The instrumental NP (the demoted subject) retains some of its "subjecthood"; in particular, the instrumental NP acts as the logical subject in sentences involving conjunctive participles (gerunds). To quote Whitney (1889, p. 358) :

> "...when a passive form is given to the sentence, the gerund qualifies the agent in the instrumental case...this construction is extremely common in much of later Sanskrit."

This is an important enough point to warrant further discussion and illustrations.

Logical subject and passive verbs

The conjunctive participle (gerund) plays a prominent part in Indo-Aryan syntax at all periods and is one of the features which help define South Asia as a linguistic area.[4] In general, the subject of the conjunctive participle must be coreferential with the subject of the sentence to which it is conjoined. Apparent exceptions are various types of "dative" constructions and possessive noun phrases closely related to the underlying subject.[5]

The degree of "demotion" of the ex-subject is evidently not so great as to prevent it from being accessible to the rules which determine co-referentiality. Thus, even though it is in a so-called oblique case, the ex-subject still functions as the (logical) subject for the purposes of this important transformation. This may be a factor in its reversion to full subject status which occurs as part of the change from a passive to an ergative system.

Three examples are given here, one each of the main passive forms: the past passive participle, e.g. ārādhitaḥ "propitiated", the future passive participle (gerundive), e.g. ānetavyaḥ "to be brought" and a finite passive verb form, third person subjunctive, functioning as a polite impertive, e.g. pṛchyantām "let them be asked".[6]

(2) tapaḥ kṛtvā mayā devo ārādhitaḥ
austerity having-done by-me (in) god (nom) was-propitiated
"Having performed austerities, I propitiated the god."

(3) sakhi, puruṣo 'yam gṛhītvā ānetavyaḥ
friend, man (nom) this having-taken is-to-be brought
"Friend, you must take and bring this man."

(4)	mañjūṣām	ānāyya	pṛchyantām	devatās	tvayā
	chest (acc)	having-caused to-bring	let-them-be asked (3rd pl)	gods (nom.pl)	by-you (in)

"Having sent for the chest, inquire of the gods."

In each of these sentences, the subjects of the gerunds *kṛtvā* "having done", *gṛhitvā* "having taken" and *ānāyya* "having caused to bring" are respectively *aham* "I", *tvam* "you" and *tvam* "you" and are coreferential with the instrumental NPs of the passive sentences, mayā "by me", *tvayā* "by you" and *tvayā* "by you". The surface subjects (the ex-objects) are *devaḥ* "god", *puruṣaḥ* "man" and *devatāḥ* "gods", respectively, as is shown by the expected verbal agreement.

The same phenomenon can be observed in Old Awadhi, one of the most important of early modern Hindi literary languages of the sixteenth and seventeenth centuries. There was a passive verb form marked by the suffix -*i*- followed by the third person endings -*a* (singular) and -*ahī* (plural).[7] Sentences (5) and (6) demonstrate that this is a true passive, rather than an imperative verb form which its translation may occasionally suggest. In (5) we have plural verb agreement with the subject *sakala* "all". Sentence (6) shows the verb *kahia* with the interrogative *kina* "why not". Plural agreement and occurrence in interrogatve sentences strongly suggest that these verb forms in -*ia* and -*iahī* are simply third person passive subjunctives with the meaning "to be done" or "let it be done". This parallels the common Sanskrit usage of third person passive subjunctives as a way of expressing a polite request (sentence 4 above).

(5)	seiahī	sakala	
	they-are-to be-served	all	"All are to be served."

(6)	āyasu	kāha;	kahia	kina	mohi
	command	what;	it-is-to be-told	why-not	to-me

"What is (your) command? Why do you not tell me?"

With this background, sentence (7) may be taken as further evidence of the identity of the logical subject of kahia "it is to be told (by you)" and the subject of the conjunctive participle jāī "(you) having gone". The surface subject (ex-object) is sãdesu "message".

(7)	lakhana	sãdesu	kahia	jani	jāī
	Lakṣmaṇa's	message	it-is-to be-told	not	having-gone

"Do not go and tell Lakṣmaṇa's message."

Contributing factors to the development of ergatives

The preceding discussion has already suggested several factors which existed in Old and Middle Indo-Aryan and which may be viewed as conducive to the development of an ergative system, or at least, which permitted its development within a large group of modern languages.

One of these is the fact that the OIA passive did not require the movement of either subject or object nor the deletion of the instrumental NP (the former subject). Thus the same order of elements obtains for both active and passive sentences. Assuming that this is S O V, we have:

(8)	rāmeṇa	sītā	pṛṣṭā
	by Ram (in)	Sita (nom)	was-asked (fem. sg. agreement)

"Ram asked Sita", "Sita was asked by Ram."

(9) rāmaḥ sītām pṛcchati
Ram (nom) Sita (acc) asks (3rd.sg.present)
"Ram asks Sita."

Of course, any of the possible permutations were possible word orders as was pointed out by Staal (1967) but these variations in word order were in response to various semantic and stylistic considerations and presumably affected passive and active sentences equally. The implication of this is that the change from passive to active constructions (either ergative or non-ergative) required no reordering of constituents as a historical process.

Although the OIA passive required the demotion of the active subject, it was not demoted so far down the hierarchy that it lost all attributes of "subjecthood", as was illustrated at some length in connection with the discussion above on the conjunctive participle. It may be conjectured that this facilitated the development of Instrumental --> Subject as part of the transformation of passive constructions into ergative and non-ergative active ones.

The gradual and pervasive loss of distinctive case endings for nouns and pronouns in Middle and Early Indo-Aryan languages was also a likely factor. The OIA nominative and accusative cases merged into a single direct case, while all of the remaining oblique cases (instrumental, dative, ablative, genitive and locative) merged into a single oblique case.[8] The process was carried even further in the eastern languages such as Bengali and Oriya, where nouns, but not pronouns, have only a single form. This process may be represented by these stages:

Stage 1: A distinctive instrumental case form for the agent
Stage 2: A generalized oblique case form for the agent

Stage 3: An agentive postposition (whose occurrence conditions the oblique case)

Stage 4: A single direct/oblique form

Sindhi is a typical example of Stage 2, while Hindi-Urdu is at Stage 3. Panjabi and Marathi are Stage 3 languages with respect to nouns and some pronouns, but Stage 2 for other pronouns.

At Stage 4 verbal agreement remains the only indication of grammatical relationship. If the verb agrees with the object in transitive sentences, the construction may be considered ergative; if with the subject the construction is non-ergative, that is, an example of nominative language structures.

The extension of agreement from the ex-object to the ex-subject (agent) and the occurrence of non-agreement (type d) further disrupt the original passive configuration.

All of these are factors which blurred the distinction between passive and active sentences in the historical development of Indo-Aryan and prepared the way for the emergence of ergative constructions. The deciding factor, however, was probably the early and complete disappearance of the corresponding active verbal systems for the past and, to some extent, the future tense systems. In OIA there was a full array of past verbal formations--imperfects, perfects, aorists, periphrastic perfects, etc., in addition to these past participial constructions. But by the earliest stages of the modern languages, these past verbal forms had been completely replaced by past tense formations based on the past passive participle.[9]

Where before there were two past systems, one active and the other passive, there was now only one which could no longer be considered passive since there was no active in terms of which it could be defined. What are left are simply transitive sentences in which the subject and object are marked in ways which characterize ergative systems in other languages.

This mutation of passive structures into active ergative and non-ergative structures was a long historical process and there must have been a long transitional period when both the passive and the ergative systems were, in some sense, coexistent. The factors discussed here are of some help in understanding what this process involved.

Summary

These speculations do not explain why an ergative system developed --or failed to develop--in particular Indo-Aryan languages or, indeed, why the passive participles so completely displaced the perfectly adequate and functional past (and future) tense systems of OIA. The answer to these and similar questions will have to await a much deeper understanding of the reasons for linguistic, especially syntactic, changes.

On the basis of this discussion, however, we may wish to consider a hypothesis such as this: the emergence of ergative systems from passive constructions is facilitated by (or, perhaps, requires) (a) a passivization rule which does not involve a movement process, (b) the non-deletion of the ex-subject (agent), (c) the retention by the agent of some grammatical relation with the verb, i.e. demotion is only partial, (d) the competing active system is either lost or radically changed.

The Indo-Aryan evidence seems fairly clear, but other ergative languages will have to be studied as far as the historical evidence permits to see if the development of ergatives from passives is just an isolated happening in Indo-Aryan, or whether it reveals more interesting and valuable insights into the nature of passive and ergative systems.

FOOTNOTES

1. Among such studies are Comrie (1973, 1975), Johnson (1974, 1975) and Dixon (1972).

2. Masica (1976) discusses briefly the typological distribution of ergative languages. This work is a very useful survey of several widespread structures among the languages of South Asia, including the conjunctive participle and "dative" subjects.

3. The Sindhi enclitic system operates in addition to the verbal agreement patterns. Yegorova (1971) and Beames (1879) provide some notion of the Sindhi enclitics. Szamosi (1974) suggests that all instances of verb-object agreement should be considered as clitic-movement rules, an approach which may prove fruitful for Indo-Aryan historical syntax.

4. Masica (1976) discusses the conjunctive participle as one of the features which define South Asia as a linguistic area.

5. Whitney (1889) and Masica (1976) give further examples.

6. The Sanskrit examples are adapted from literary texts or grammatical descriptions by deleting material irrelevant to the discussion and by an occasional reordering. Sandhi rules are sometimes not applied.

7. This form is the source of the Hindi-Urdu polite imperative ending in -*ie* and -*iegā* which is still occasionally used as a third person passive, rather than a second person imperative, its usual

function.

8. Some frozen case forms do remain in the various languages, but they are usually restricted to a few nouns or pronouns.

9. A few relics of the OIA finite past forms may be found. An example is the Panjabi *sī* 'was' which may be related to OIA imperfect verb form *āsīt* 'he, she was'.

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The Notion of 'Subject' in Kannada

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0. Introduction:* One of the basic claims of Relational Grammar has been that the statement of rules in terms of basic grammatical relations (rather than in terms of structural subconfigurations) enables us to capture cross-linguistic functional similarities in processes such as passivization, causativization and relativization (Johnson 1974, Keenan 1975, Comrie 1974). If this claim is to be empirically valid, we need, as a prerequisite, universal characterizations of basic grammatical primes, such as the notion 'subject of' (Keenan 1976). As a first step in this direction, we need language-specific statements about the properties of noun phrases which are called subjects. It is this requirement that provides the basic raison dêtre of this paper.

A further object of this paper is typological i.e., to provide an explicit basis for comparing the languages of the Indian subcontinent in order to examine whether a shared notion of 'subject' is one of the features that define South Asia as a linguistic area (Emeneau 1956, Masica 1976).

Finally, an explicit characterization of the notion of subject is crucial to the description of the Kannada language as well, since, as will be shown shortly, a number of grammatical processes in the language are most generally stated in terms of their effect on grammatical relations defined either at the level of underlying representation or at the surface structure level.

For the purposes of this study, I have employed the hueristic suggested in Keenan (1976) of first isolating the subjects of 'basic' sentences (intransitive and transitive) and studying their 'coding', 'semantic' and 'behavioral' properties, thus coming up with a set of criteria that can then be applied to noun phrases in other types of constructions.

1.0. *Previous treatment of this topic*: In traditional grammars of Kannada, for example, *Śabdamaṇidarpaṇa* (1240 A.D.) and *Karṇāṭaka Śabdānuśanam* (1406 A.D.) the grammatical notion of subject is identified with the semantic notion of agent (or *Kartṛ*), the latter being defined, by the commentators, as 'the doer of the action denoted by the verb' (Sharma 1968: 185).[1] Consequently, certain syntactic processes which make crucial use of the 'subject'(e.g., Coreferential Subject Deletion) are stated in terms of the notion *Kartṛ*. (Such a formulation misses important generalizations about the language, as shown in section 8. below). This practice seems to have prevailed even in the more recent pedagogical grammars, both by native scholars (cf. Śrikanthaiah 1960: 202) and the missionaries (cf. Kittel 1903, Spencer 1914).

The two structuralist grammars of Kannada (Bright 1958 and Hiremath 1961) do not refer to the notion of subject, and, in general pay very little attention to syntax. The first transformational generative treatment of Kannada by Ramanujan (1964) makes use of the notion of 'subject', e.g., in the brief discussion on 'impersonal' sentences, but the author feels no need to define the notion with reference to Kannada.

The comparative grammars of Dravidian languages (cf. Caldwell 1856, Bloch 1954) do not contain an explicit discussion of 'subject' either. However, the following statement by Bloch is significant:

> ...the flexional marks (in Dravidian sentences) may be deficient. For example, the noun, such as it is, can be subject, or direct object, or first term of the compound; it can also function as predicate...the signs of grammatical connection are indeed relatively rare, if one were to compare these languages with other languages in which most of the words necessarily possess mark of their function. (p. 99)

Nevertheless, Bloch continues, "the order of the words is significant ... Eventually the order alone is sufficient to mark the relations." This last statement is not strictly correct, as we shall presently see.

In sum, it is not incorrect to state that traditionally, the notion of subject in Kannada has been either considered to be too self-evident to merit discussion or definition or it has been identified with the notion of 'agent'. That this approach is not quite satisfactory will become apparent in the following sections.

2.0. Coding Properties: We shall now turn to the properties of subjects in Kannada. In this section, I shall discuss the overt formal properties (or 'coding' properties, in Keenan's terms) of the subjects of basic sentences and in the following two sections (sections 3 and 4), I shall discuss their 'semantic' and 'behavioral' (or deep syntactic) properties.

Traditionally, the three basic tests of subjecthood have been (i) case-marking, (ii) capacity to govern verb agreement, and (iii) position in the sentence. Before discussing these properties, a brief word about the typological characteristics of Kannada seems to be in order.

Kannada is an SOV language, and like Japanese, displays a strong verb-final requirement. It is a nominative-accusative type language rather than ergative-absolutive (i.e., the subject of an intransitive sentence behaves exactly like the subject of a transitive sentence and is not functionally identified (either by case ending or verb agreement) with the object of a transitive sentence). The cases are overtly marked and so is agreement.

2.1. Case-Marking: The following case markings obtain in Kannada:

nominative = Ø
accusative = -annu ~ Ø
dative = -ge/-ige/-a(k)ke
genitive = -a
locative = -alli
instrumental/ablative = -inda

Notice that the zero ending may signal either the nominative or accusative (leading to Bloch's despair). Thus both (1) and (1a) are grammatical, the former being more formal, literary and the latter colloquial.

1. magu hālannu kuḍiyitu
   child milk-acc. drank

1a. magu hālu kudiyitu.
   'The child drank milk.'

Subjects of transitive (1) and intransitive sentences (2) are in the nominative or take the zero ending. However, since zero

2. hakki hāṛitu
   bird flew
   'The bird flew.'

can stand for either nominative or accusative, case ending, by itself, cannot uniquely characterize subjects in Kannada.

2.2. Verb Agreement: The verb in a Kannada sentence agrees with its subject in number, gender and person. All 'rational' nouns are masculine or feminine according to the sex of the referent, and all animals are neuter. The plural form also signals honorificity.

3. avanu nāḷe baruttāne.
he tomorrow will come (3rd p. masc. sing.)
'He will come tomorrow.'

3a. avaḷu nāḷe baruttāḷe.
she tomorrow will come (3rd p. fem. sing.)

3b. avaru nāḷe baruttāre.
he (hon.)/they tomorrow will come (3rd p. $\begin{Bmatrix}\text{sing. hon.}\\ \text{pl.}\end{Bmatrix}$)
'He/They will come tomorrow.'

4. avanu ūṭa māḍida.
he meal did (masc.)
'He ate (his) meal.'

4a. nāyi anna tindtu.
dog rice ate (neut.)
'The dog ate the rice.'

2.3. Word Order: Although Bloch's statement that in Dravidian sentences, "the determinant always precedes the determinated" is generally correct, his other observation that "order alone is eventually sufficient to mark the relations" (p. 99) needs to be accepted with some reservations. As Bloch correctly states, order is not obligatory in Dravidian and there is quite a bit of freedom for positioning the subject in a sentence. The subject need not be the left-most major constituent, although it often is. For example, notice the sentences (5-7) where the subject is not at the beginning of the sentence, and these sentences are not deviant or even stylistically marked.

5. dariyalli hōguvavarannū baruvarannū avanu kaibīsi
   in the street goers and comers and he raising hand
   karedanu.
   called
   'He called the passers-by in the street with a gesture of hand.'

6. sikkitu nanna pustaka!
   found my book
   'My book is found!'

7. mōḍagaḷa mareyinda candranu iṇīki nōḍuttiddāne
   clouds-of behind-from moon peeping seeing is
   'The moon is peeping from behind the clouds.'

Thus, unlike in English, word order is not a very reliable test of subjecthood in Kannada either.

2.4. Omission of Subjects: To Bloch's list of complaints about the difficulties in determining grammatical relations may be added one more phenomenon which compounds the situation--namely the extremely common practice to omit the subject in Kannada sentences. As Ramanujan (1964) notes, "In many sentences the subject NP may be omitted, and is, frequently. These sentences, even in their skeletal form where the object NP is also omitted, are not felt as truncated or response sentences, as they are in English." For example,

8. (nānu) barale?
   I Q come
   'May I take leave?'

9. ūṭak ēḷtīra?
meal-for Q get up
'Will you come to dinner?'

10. (nānu) (ī kelsa) māḍle?
(I) (this work) Q do
'Shall I do this job?'

The subject NP is omitted when the subject is obvious, or previously specified in running discourse (cf. Srikanthaiah 1960:210).

11. maguvige rāmu anta nāmakaraṇa māḍidru.
to-child Ramu quote naming did
(His parents) named the child Ramu.

12. āfīsinda manēg bartidde. darīl ond bekku nōḍde.
office-from to home was coming. on way a cat saw
'I was coming home from the office. On the way I saw a cat.'

Thus it it clear that none of the coding properties--except verb agreement--by itself can be expected to uniquely characterize the subject in Kannada. As we shall see later (in section 5 below) even verb agreement turns out to be limited in its utility as an indicator of subjecthood.

3.0. Semantic Properties: Although the traditional characterization of the notion of subject as the 'doer of the action described by the verb' may be sufficient in a large number of sentences such as

13. nānu soḷḷeyannu konde.
I mosquito ~ acc. killed
'I killed the mosquito.'

it fails to uniquely characterize the subject in perhaps equally large number of cases where the role of the subject is not that of actor, or where the subject is a referent rather than an actor, or where the verb may not describe an action. For example, the following sentences illustrate just a few of the large number of semantic properties displayed by subjects in Kannada, including those of experiencer, victim, beneficiary, etc.

14. shīla lāṭariyalli bahumana geddaḷu.
Sheela lottery -in prize won
'Sheela won a prize in the lottery.'

15. avanu bahaḷa baḷaliddāne.
he much tired is
'He is very tired.'

16. rāmu yuddhadalli kālu kaḷedukonda.
Ramu war -in leg lost
'Ramu lost a leg in the war.'

The semantic properties of subjects may be reference-related, rather than role-related:

17. bengaḷūru bahaḷa doḍḍadu.
Bangalore very big
'Bangalore is very large.'

18. katti haritavāgide.
knife sharp is
'The knife is sharp.'

19. āseyē dukhakke kāraṇa.
greed itself for misery reason (is)
'Greed is the root cause of misery.'

Subjects may be propositions, and expressions of temporal or spacial range, rather than unique reference agents:

20. hadinālku varsha bahaḷa dīrgha kāla.
fourteen years very long time
'Fourteen years is a very long time.'

21. nūru malli bahaḷa dūra.
hundred miles very far
'A hundred miles is very far.'

22. nīnu allige hōguvudu sariyalla.
you there going not proper
'Your going there is not proper.'

There is no need to belabor this point. A cursory glance at the wide range sentence types of the language reveals that there is no one semantic property which can uniquely characterize subjects.

4.0. Behavioral Properties: Continuing our examination of the properties of the NPs that everyone agrees are the 'subjects' of basic (transitive and intransitive) sentences, we shall discuss the behavior of these NPs with respect to certain syntactic transformations in Kannada. The transformations to be discussed are those that make crucial reference to the 'subject' NP in the input structure--either in terms of the NP in question being the 'controller' of the rule or the 'victim' or both, or, in some other cases, the NP that gets a specified derived case-marking or grammatical relation. A disclaimer is in order: to my knowledge, many of these rules are being discussed here for the first time in transformational terms with reference to Kannada and, consequently, the following discussion is at best highly tentative and likely to be deficient in many details. Nevertheless the rules in question are crucial to the syntax of Kannada and it is hoped that an explicit statement, however tentative, might stimulate further refinement of the formulations and thereby aid in testing the validity of syntactic hypothes with respect to the language.

4.1. Reflexivization: The first of these rules which crucially refer to the subject NP is reflexivization. In Kannada, only the subject can be the controller of the reflexive--i.e., the NP that functions as the antecedent of the reflexive pronoun must be subject.[2]

23. dhṛtarāshtranu pānḍuvige tanna rājyavannu
Dhrtarāshṭra$_i$ Pandu - dat. self's$_i$ kingdom - acc.
biṭṭukoṭṭanu.
gave up
'Dhrtarashtra gave his own kingdom to Pandu.'

In (23) the reflexive refers only to the subject, Dhrtarāshṭra, and not to the indirect object, Pānḍu. If the latter meaning is intended, the reflexive must be replaced by a simple pronominal form, as in (23a).

23a. dhrtarāshṭranu pānduvige avana rājyavannu biṭṭukoṭṭanu.
'Dhrtarashtra gave his$_i$ kingdom (back) to Panḍu$_i$.'

The point is illustrated even more clearly in sentences with honorific subjects, which demand the honorific form of reflexive. In sentences such as (24) with a honorific subject and a non-honorific object, the non-honorific form of reflexive is ungrammatical.

24. rāyaru maguvige $\left\{\begin{matrix}\text{tamma}\\ ^{*}\text{tanna}\end{matrix}\right\}$

Rao$_i$ (hon.) child$_j$ - dat. $\left\{\begin{matrix}\text{self}_i\text{'s (hon.)}\\ \text{self}_j\text{'s}\end{matrix}\right\}$

shālannu hodesidaru.

shawl - acc. covered

'Rao covered the child with his own shawl.'

Sentences such as (25), in which the reflexive refers ambiguously to either the subject or the indirect object, may appear to be counter-examples to this crucial subject-reference property claimed for reflexive in Kannada.

25. rāmanu krishṇanige tanna tangiyannu kareyalu

Rama Krishna - dat. self's sister - acc. to call

hēḷidanu.

asked

'Rama$_i$ asked Krishna$_j$ to call $\left\{\begin{matrix}\text{a. his}_i\\ \text{b. his}_j\end{matrix}\right\}$ sister.

However, a closer examination reveals that the surface ambiguity is due to two extraneous facts which do not affect the above mentioned generalization. These facts are (i) rule interaction; and (ii) the scope of the reflexive in Kannada. In (25), for example, the reflexive indeed originates as coreferential to a subject NP--with the matrix subject NP, *rama* in the (a) reading, and with the complement subject NP, *krishna* in the (b) reading. Subsequent to reflexivization, Equi NP Deletion applies, deleting the complement subject under identity with the matrix indirect object, *krishna*, thus creating surface opacity. In other words, the underlying representation of (25) is, for the (b) reading, roughly something like (25'):

25'. rāmanu krishṇanige (krishnanu krishṇana tangiyannu

kare-) hēḷidanu.

This example, incidentally, also illustrates another property of reflexive in Kannada, namely that it is not clause-bound, as it is in English and in many other languages. In this respect, Kannada behaves like Japanese (cf. Kuno 1973:293ff.).

4.2. Coreferential Subject Deletion: Another rule which crucially refers to subject NP is what may be called coreferential subject deletion. This rule operates to generate sentences with participial clauses, as in (26).

26. kumar manege bandu, ūṭa māḍi, nidde
Kumar home-to having come, meal having did, sleep
hōdanu.
went.

'Having come home and eaten, Kumar went to sleep.'

In (26) the first two clauses have been reduced to participials, and only the last clause has a finite verb. Note also that the subjects of all but the first clause have been deleted. This deletion of subject subsequent to participialization works backward as well, as shown in sentences like (27).

27. mārkettige hōgi shyāmala tarakāri tandaḷu.
market-to having gone, Shyamala vegetables brought.

'Shyamala went to the market and brought vegetables.'

However, in order for a grammatical sentence with a participial modifying clause to result, the subjects of the component clauses must be identical and all but one of the identical subjects must be deleted.[3] These conditions are illustrated in (28) and (29).

28*. rāmanu manege bandu, tayi ūta baḍisidaḷu.
Rama home-to having come, mother meal served
'Rama having come home, mother served (him) the meal.'

29*. rāmanu manege bandu, rāmanu ūṭa mādi,
Rama home-to having come, Rama meal having done,
rāmanu nidde hōdanu.
Ramama sleep went
'Rama having come home, Rama having eaten, Rama went to sleep.'

Sentence (28) shows that participial reduction is blocked with non-identical subjects. A grammatical version of (28) is an absolutive construction, (30), where the main verb of the first clause takes the absolutive participial form, baralu.

30. rāmanu manege baralu tayi (avanige) ūṭa baḍisidaḷu.

Sentence (29) shows that the deletion of all but one of the identical subjects is obligatory.

That this deletion rule is sensitive to the grammatical relation, subject, is made clear by the following examples. They show that the NP deleted under identity with the subject of the sentence must itself be a subject--the deletion of a direct object (31a) or an indirect object (31b) under identity with the subject leaves the sentences ungrammatical.

31a*. tayi Ø harasi, maganu vidēshakke hōdanu.
mother having blessed son abroad went
'The mother having blessed (him) the son went abroad.'

31b*. tayi Ø tinḍi koṭṭu, maganu skūlige hōdanu.
mother snacks having given, son school-to went.
'Mother having given snacks (to her son) the son went
to school.'

Thus it is clear that the victim of deletion has to subject.

The controller of deletion also must be subject. Sentences in which a subject NP has been deleted under identity with a non-subject NP such as a direct object (32a) or an indirect object (32b) are ungrammatical.

32a*. tayi maganannu harasi, Ø vidēshakke hōdanu.
'Mother having blessed her son, Ø went abroad.'

32b*. tayi maganige tinḍi koṭṭu, Ø skūlige hōdanu.
'Mother having given snacks to her son, went to school.'

(32a) and (32b) are totally ungrammatical because in each case, the entire sentence is understood with the 'mother' as subject but the verb inflection in the second clause denotes (anomalously), a masculine subject.

Thus we have seen that the coreferential subject deletion rule in Kannada provides, in fact, two strong tests of subjecthood: the controller as well as the victim of the deletion rule must be subject NPs of their respective clauses (and they must fulfill the identity condition).

4.3. Causativization: The rule variously referred to as causativization, verb raising, or predicate raising provides another test of subjecthood in Kannada. As Comrie (1974) has observed, the rule is of particular interest to a theory of relationally-based grammar because it involves the coalescence of an essentially bisentential underlying structure into a unisentential surface structure. As a result, a change in the underlying grammatical relations of the (embedded) complement sentence is necessitated--given universal restrictions on the number of instances of a particular grammatic relation permitted per sentence (usually only one). The new grammatical relations acquired by the NPs in the complement sentence are determined by two factors: (i) the nature of the complement sentence (intransitive, transitive, bitransitive, etc.); (ii) the universal Case Hierarchy (presented in Keenan and Comrie 1972). It is readily acknowledged that there are important exceptions to this hypothesis.

With this theoretical model in view, we may now consider the causative rule in Kannada. In Kannada, the rule involves the attachment of the causative suffix -*isu* to the main verb of the complement sentence, and changing the grammatical relations borne by NPs in the complement sentence along the following lines:

A. If the complement sentence is intransitive, its subject becomes the direct object of the derived sentence and gets the accusative marking (see e.g. 33).

B. If the complement sentence is transitive, its subject becomes either (i) derived indirect object (if the complement verb belongs to the class of 'ingestive' verbs[4] and gets the dative case marking, (see e.g. 34) or (ii) derived instrumental and gets the instrumental case marking (see e.g. 35).[5]

33a. magu aḷuttide.

child crying is

'The child is crying.'

33b. yārō maguvannu aḷisuttiddāre.

somebody child - acc. cry cause prog. is

'Somebody is making the child cry.'

34a. magu hālannu kuḍiyitu.

child milk -acc. drank

'The child drank milk.'

34b. tāyi maguvige hālannu kuḍisidaḷu.

mother child - dat. milk - acc. drink-cause-past.

'Mother caused the child to drink milk.' (=Mother fed the child.)

35a. Javānanu ettugaḷannu horakke aṭṭidanu.

servant oxen - acc. outside chased

'The servant chased the oxen out.'

35b. rāyaru Javānaninda ettugaḷannu horakke aṭṭisidaru.

Rao servant-instr. oxen - acc. outside chase-cause-past.

'Rao made the servant chase the oxen out.'

Notice that in all of the above sentences, only the subject NPs are affected--all other NPs retain their original grammatical relations. Thus, the behavior of NPs (in terms of grammatical relations and case marking) under causativization seems to be a reliable indicator of their original grammatical relations.

4.4. Equi NP Deletion: In Kannada, certain verbs such as *bayasu* 'wish', *Ishṭa paḍu* 'like/wish', *oppu* 'agree', *prayatnisu* 'try' require that the subjects of their complement sentence be identical to the subject of the matrix sentence, and further that the complement subject be obligatorily deleted. This requirement is illustrated by the grammaticality of (36) and the ungrammaticality of (36a) and (36b).

36. dinesh [(Ø)]lanca koḍalu] oppalilla.
    Dinesh bribe to give agreed - neg.
    'Dinesh didn't agree to pay bribe.'

36a*. dinesh [murti lanča koḍalu] oppalilla.
    'Dinesh didn't agree for Murthy to pay bribe.'

36b*. dinēsh tānu lanča koḍalu oppalilla.
    'Dinesh didn't agree for himself to pay bribe.'

When the two subjects are not identical, a different structure, which involves nominalization of the complement sentence, is employed:

37. dinesh murti lanča koḍuvudannu oppalilla.
    'Dinesh didn't approve of Murthy's paying bribe.'

Notice that in (37) the verb form is not the infinitive as in (36). Also, the matrix verb, although homophonous, is translated differently, reflecting an important semantic difference.

Similarly, certain other verbs require identity between the object of the matrix sentence and the subject of the complement sentence. These verbs include *oppisu* 'persuade', *āgne māḍu* 'order', *pusalāyisu* 'coax', *hēḷu* 'tell/ask', etc. Again, not only must the identity constraint be met, but also the identical subject of the complement sentence be obligatorily deleted, as the examples in (38) illustrate:

38. doreyu sainikanige$_i$ [$\emptyset_i$ vidūshakanannu horage
king soldier - dat. jester - acc. out
hākalu] āgne māḍidanu.
to put order did
'The king ordered the soldier to throw the jester out.'

38a*. doreyu mantrige [sainikanu vidūshakanannu horage
king minister dat. soldier jester - acc. out
hākalu] āgne māḍidanu.
to put order did
'The king ordered the minister for the soldier to throw the jester out.'

38*. doreyu sainikanige $\begin{Bmatrix}\text{sainikanu}\\ \text{avanu}\end{Bmatrix}$ ...
'The king ordered the soldier for $\begin{matrix}\text{the soldier}\\ \text{him}\end{matrix}$ to throw the jester out.'

Following the practice in current transformational literature, we may refer to the rule that deletes the complement subject under identity with the matrix subject or object as Equi-NP-Deletion (*Equi* for short). Notice that while the controller of *Equi*-deletion may be either subject or object, the victim of deletion has to be subject. If it is not subject, ungrammatical sentences such as (39) will result:

39*. dinesh mūrtige$_i$ [sundar $\emptyset_i$ hana koḍalu] hēlidannu.
Dinesh Murthy - dat. Sundar money to give told
'Dinesh told Murthy for Sundar to give (him) money.'

Thus, the ability of a noun phrase to undergo deletion under identity with the subject or object (as the case may be) of an

Equi verb provides yet another clear test of subjecthood in Kannada.

4.5. Passivization: It has often been remarked in Kannada grammatical literature that passive sentences in Kannada are clumsy, awkward, unnatural and hence seldom used (see, for example, Caldwell 1856: 463-7, Dharwarkar 1961:274-81, Spencer 1914: 202-3, Srikanthaiah 1960: 209, Sridhar 1976). However, there do exist pairs of sentences of the type (40) - (40a), with regular syntactic and semantic correspondences which are best characterized in terms of transformation, which may be (and has been) called passive.

40. pōlīsaru   āpāditanannu   prašnisidaru.
police (nom.) accused - acc. questioned
'The police questioned the accused.'

40a. pōlisarinda   āpāditanu   prašnisalpaṭṭanu.
police - instr. accused (nom.) questioned - pass.
'The accused was questioned by the police.'

The passive rule has the effect of 'demoting' the subject (agent) noun phrase of the active sentence to the position of an oblique object (which subsequently gets the instrumental case), and 'promoting' the direct object to subject position (which is then marked by the nominative or Ø ending). The main verb is changed to an infinitive and is followed by the auxiliary *paḍu* 'to suffer/ experience', which inflects according to the derived subject. The order of elements need not be changed, as it is in, say, English. (Incidentally, this last fact is one of the factors that makes the s-initial position an unreliable indicator of subjecthood in Kannada.)

4.6. Other Rules: There are other syntactic phenomena in Kannada which seem to involve the notion of subject. The reason I am putting them here under the nondescript title 'others' is pretty obvious. Little is known about the details of these phenomena and not much attention has been paid to them in either traditional grammars or in the more recent works on Kannada. A lot more work needs to be done before these phenomena are clearly understood. At this point, I can only mention the areas that await investigation.

4.6.1. The first of these phenomena involves a rule similar to what is referred to in transformational literature as subject to object raising (or B-raising). It appears that in sentences like (41), the first NP in the accusative must originate as the subject of a complement sentence:

41. avaḷu kallannē dēvarendu tilidu pūjisuttāḷe.
she stone - acc. god - compl. considering worships
'She worships stone considering (it) to be God.'

42. āta nannannu yahkaščit bīdiya heṇṇu endu tiḷididdāne.
he I - acc. petty street - of girl compl. thinks
'(Lit.) He thinks me to be a petty street-girl.'

Śabdānuśāsana (Sharma 1968: 198) gives examples from Old Kannada such as:

43. avanam pullam tiḷidam.
he - acc. grass - acc. considered

43a. avanan ātam tṛṇam bagedam.
he$_i$ he$_j$ - acc. grass considered
'He$_i$ considered him$_j$ to be (worthless as) grass.'

Thus, with a very limited class of 'mental attitude' verbs such as 'think', 'consider' etc., Kannada does seem to permit raising of the subject of the complement sentence to matrix direct object position with the raised NPs taking the accusative casemarking. While neither the class of verbs that permits this type of raising nor the nature of the complement sentence in such constructions is clear at this point, it seems plausible, however, that one of the restrictions on B-raising in Kannada is that the complement sentence be of the equational type, with a predicate nominative or adjective.

4.6.2. There is a sentence type in Kannada in which a noun phrase that must have originated as a direct object in the underlying representation functions as a surface subject. This is illustrated in (44) and (45).

44. huḍuga nōḍalu sundara.
boy to see handsome (is)
'The boy is handsome to see.'

45. ī bhāśe kaliyalu sulabha.
this language to learn easy (is)
'This language is easy to learn.'

In the formal literary style, the adjectives inflect to agree with the derived subject huḍuga and bhāśe, respectively. Although clearly a relation changing rule seems to be involved in the derivation of such sentences, it is unclear whether the rule is similar to the rule of Tough Movement posited for English. (In particular, while the class of predicates that permits the application of this rule seems to be a subset of the Tough Movement predicates in English, the possibility of an adverbial particle -āgi on the predicates in the literary style points to a possible difference in the nature of the two rules.)

4.6.3. Another phenomenon that seems to involve the notion of subject in Kannada is the occurrence of the reflexive auxiliary koḷ. In clear cases, the occurrence of Koḷ with the main verb denotes an action of which the victim/beneficiary is the subject of the sentence. This is brought out in the difference between (46a) and (46b):

46a. darjiyu tanna baṭṭegaḷannu holedukonḍanu.
tailor self's clothes - acc. stitched - reflexive
'The tailor stitched (lit. his own) clothes for himself.'

46b. darjiyu rāyarige baṭṭegaḷannu holedu $\left\{\begin{array}{l}\text{*konḍanu.}\\ \text{koṭṭanu.}\end{array}\right\}$
tailor Rao - dat. clothes - acc. stitched $\left\{\begin{array}{l}\text{*reflexive}\\ \text{gave}\end{array}\right\}$
'The tailor stitched the clothes for Rao (*for himself).'

The point is unambiguously illustrated in (47):

47. avanu ātmahatye $\left\{\begin{array}{l}\text{*māḍidanu.}\\ \text{māḍikonḍanu.}\end{array}\right\}$
he suicide $\left\{\begin{array}{l}\text{*did}\\ \text{did + reflexive}\end{array}\right\}$
'He committed suicide.'

In (47), the non-reflexive form is ungrammatical, since the victim of suicide can only be one's self. Not all occurrences of koḷ are as clear, however, *koḷ* often occurs in contexts where the reflexive meaning is not obvious, as in *nintu koṇḍa* 'He stood himself' which is identical in meaning to *ninta* 'He stood.' The details of the distribution of *koḷ* should prove very interesting.

5.0. *Application of Criteria: The Dative Subjects*: Many scholars have observed that sentences like (48) (or its equivalents in other South Asian languages) are peculiar in that in these sentences, the NP intuitively felt to be the subject is not the one that behaves like a subject (cf. Kachru 1970, Agesthialingom 1972, Masica 1976):

48. avarige āru makkaḷu iddāre.
he - dat. six children (nom.) are
'He has six children.'

Note the conflicting evidence from the coding properties: case marking and verb agreement point to the nominative NP, while word order selects the dative NP as subject. I have dealt with the syntax and semantics of this 'dative subject construction' in Sridhar (1976). Here I shall only briefly discuss it in terms of the criteria developed in sections 2-4.

In terms of semantic properties, dative subjects are restricted to the class of possessor or experiencer NPs. Volitional agents do not occur as dative subjects. (Cf. the ungrammaticality of (49a) as against (49), which is felicitous.)

49. avanige sāvu bantu.
he - dat. death came
'He died.'

49a*. avanige ātmahatye āyitu.

he - dat. suicide happened

'He committed suicide.'

The evidence from syntactic behavior is also conflicting. Dative subjects act like nominative subjects in that they function as controller of reflexive (50) and both controller and victim of co-referential subject deletion (51a and b).

50. avarige$_i$ tamma$_i$ jātiyavarannu kandare

he - dat. self's community's people - acc. towards

bahaḷa tātsāra.

much contempt

'He has much contempt toward people of his own community.'

51a. Ø$_i$ ī mātu kēḷi] avanige$_i$ nagu bantu.

this word having heard he - dat. laughter came

'On hearing this, he was amused.'

51b. Ø$_i$ sittu bandu] avanu$_i$ kūgaḍatoḍagida.

anger having come, he to shout began

'Getting angry, he began to shout.'

The evidence from causativization (52a and b) is not so clear. While the continued dative case on the ex-complement subject after the causative rule has applied may suggest that dative subjects behave like subjects of ingestive verbs (cf. (34b) above), it can also be argued that the accusative marking on what was the complement sentence nominative suggests that the real subject is, in fact, the nominative and that it behaves like the subject of an intransitive sentence under causativization. (The implications of either position are examined in detail in Sridhar 1976.)

52a. nanage talenōvu bantu.
I - dat. headache (nom.) came
'I got a headache.'

52b. nīnu nanage talenōvannu bariside.
you I - dat. headache - acc. come cause
'You made me get a headache.'

Dative subjects cannot be deleted under Equi. Also, the dative subject sentences cannot be either passivized or B-raised; nor can koḷ co-occur with a dative subject.

We must conclude, then, that dative subjects behave like true subjects in some important ways but not in others. The explanation for their inability to behave like full-fledged subjects might be in the peculiarities of the semantics of the construction--its restriction to non-volitional subjects, and to stative predicates.

6.0. Conclusion: We may conclude the following from the foregoing discussion of the properties of subjects in Kannada:

One, the notion of subject in Kannada is not a discrete one but rather a squish. From the analysis of dative subjects in terms of the criteria developed in sections 2-4, it appears that some noun phrases may be more 'subjecty' than others. This conclusion is in harmony with that of Keenan (1976) based upon cross-linguistic evidence. If we are to rank the candidates on a scale of subjecthood, nominative subjects must be placed highest, because of their versatility, and dative subjects must take second place, because of the restrictions on their subject-like behavior.

Second, typologically, it appears that subjects in Kannada share a number of properties with subjects in other Indian languages (e.g., as controller of reflexive, cf. Kachru 1970). However, there are some important differences as well, for example, dative subjects seem to behave more like subjects in Kannada than their counterparts in Hindi-Urdu do (they cannot be victims of coreferential subject deletion in Hindi-Urdu). This, in addition to the fact that the class of predicates that governs dative subjects (cf. Sridhar 1976) is wider in Dravidian than in Indo-Aryan languages seems to support Masica's observation that the dative subject construction is more highly developed in Dravidian.

Third, the analysis presented in sections 2-5 suggests that transformations such as reflexivization and coreferential subject deletion are best stated in Kannada in terms of their effect on underlying grammatical relations. Otherwise, we will have to treat their applicability in dative subject constructions as exceptional, thus clearly missing a generalization.

Notes

*I am deeply indebted to Professor Yamuna Kachru for her guidance, suggestions, and comments. All errors, of course, are perpetrations of God.

[1] Cf.: 'karōtīti kartā'; also: 'kriyā vyāpāravān kartṛ' (Sharma 1968: 185).

[2] Kannada has distinct reflexive forms only in the third person.

[3] Traditional grammarians (Kēśirāja, Bhaṭṭākalanka) state the constraint in terms of identity of 'agents' ('svayam kartṛ', 'tulya kartṛ'. 'ēka kartṛ', etc.) cf. Narasimhāchar (1968), Sharma (1968).

[4] 'Ingestive' verbs are verbs such as eat, drink, etc., in which the action denoted by the verb affects the subject himself.

[5] Cf. Sridhar (1976) and Cole and Sridhar (1976).

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Subject in Gujarati:

An Examination of Verb-agreement Phenomenon

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I

In describing and discussing languages it is traditional to speak of subject, object, predicate, etc. as constituents of sentences. However, there have been distinctions drawn between logical vs. grammatical subjects (Jesperson: 147-150), or categorial vs. functional notions (Chomsky: 68-74), or deep level semantic roles and their surface manifestations (Fillmore: 21-31). Additionally; there is an emerging trend to question traditional grammatical concepts and to inquire about their differentiating and universal characteristics. The first of these to be questioned was probably the distinction between Verb and Adjective (Lakoff: 115-133), with other notions being challenged later. In recent years, Subject has become a topic of interest and scrutiny.

Although speakers of a language have little difficulty in identifying the subject of a sentence, the criterion that they put to use in determining the subject have been quite difficult to determine. Thus, Subject has been viewed as an actor/a performer of the action of the verb, or as a definite opposed to an indefinite element of a sentence, or as an element that expresses known as opposed to new information, or as an entity about which something is predicated. That none of these characteristics is sufficient to determine Subjecthood of a constituent is well-documented in the literature (Liles: 140-150). Grammatical devices such as word-order or inflections as indicators of the syntactic functions of subject, object and the like have also received significant attention, but such devices by themselves are not always capable of providing understanding about the underlying structures of sentences. Thus, Subject, though a widely recognized notion, has evaded any satisfactory general characterization (Keneen).

The traditional subject could semantically be an actor, agent, experiencer or receiver of the actions of the verb and grammatically a constituent that determines the forms of the verb in the predicate. The semantic characterization holds for the majority, but not all, of the sentences of a language. Grammatical characterization was based on the European languages that the traditional grammarians were familiar with and has since been found in many other languages as well. The latter is referred to as concord or agreement in conventional grammars and is usually exemplified by a conjugational paradigm and expressed by a statement such as; the verb agrees with its subject in such and such properties. How this traditional grammatical characterization works in Gujarati is discussed in the following pages.

This paper is an examination of Gujarati verb agreement, in particular, the features and constituents that play roles in the phenomenon. It attempts to arrive at pertinent generalizations that provide understanding about other aspects of the language as well. In place of attempting to clarify Subject as a semantic notion, node relation or linear constituent, we have investigated how verb agreement refers to Subject and what understanding the system underlying the agreement provides about the codification of Subject in Gujarati.[1]

II

A verb in Gujarati appears in a variety of forms, constructed by derivational and inflectional elements. It has traditionally been assumed that, in Gujarati, the verb agrees predominantly with the subject, but occasionally with the object. A large number of verb forms is possible due to the fact that stems are inflected for tense, aspect or modal, and the resultant forms are further differentiated by inflectional endings for person or gender and number. We shall first examine occurances of agreement endings to establish features and combinations of features associated with them and the grammatical contexts that determine the appearance of the specific ending. Observe the following:

1a. əhme aw.š.ʊ.
we come.Future. ⟨I, Plural⟩

'We will come.'

1b. təhme aw.š.o.
you ⟨II, Plural⟩

'You (pl.) will come.'

1c. tʊ aw.š.e.
you (sg.) ⟨II, Singular⟩

'You (sg.) will come.'

The difference in endings -*ʊ* and -*o* in (1a) and (1b) is attributable to differences in Person and -*o* and -*e* in (1b) and (1c) to differences in Number of their subject noun phrase.[2] Thus, constructions in Future show the verb agreeing with the subject in Person and Number. A similar agreement is found when sentences are in Present, as exemplified by the following:

2a. əhme aw.ie.

'We may come.'

2b. təhme aw.o.

'You may come.'

2c. tũ aw.e.

'You (sg.) may come.'

But consider the following sentences:

3a. Ramesh aw.y.o.

'Ramesh came.'

3b. Sudha aw.y.i.[3]

'Sudha came.'

3c. baḷək aw.y.ũ.
child

'A child came.'

3d. manəso aw.y.a.
men

'Men came.'

4a. Ramesh aw.el.o.

'Ramesh had come.'

4b. Sudha aw.eḷ.i.

'Sudha had come.'

4c. baḷək aw.eḷ.ũ.

'The child had come.'

5a. Ramesh aw.t.o. hə .t.o.

'Ramesh was coming.'

5b. Sudha aw.t.i hə.t.i.

'Sudha was coming.'

5c. baḷək aw.t.ũ hə .t.ũ.

'The child was coming.'

Unlike the preceding sentences these sentences are in Pasts of different types. Additionally, the subjects in these sentences are nouns--Ramesh, a masculine name, Sudha, a feminine name, baḷək, a neuter noun, and manəso, a masculine plural noun. The verb in these cases still agrees with the subject, but in Gender and Number. The gender-number-agreement also occurs with the auxiliary hə--in (5a), (5b), and (5c). Agreement, thus, is in either Person and Number, or Gender and Number. Gender-number-agreement appears whenever the verb is in one or another type of Past, i.e. following the tense markers -y-, -el-, or -t-. In other instances, a verb agrees with the subject in Person and Number. It is, therefore, predictable that in (6a), (6b), and (6c) the main verb aw- shows agreement in Gender and Number while the auxiliary ch-[4] in Person and Number.

6a. Ramesh aw.y.o ch.e.
'Ramesh has come.'

6b. Sudha aw.y.i ch.e.
'Sudha has come.'

6c. baḷək aw.y.0 ch.e.
'The child has come.'

The illustrative examples (1a) through (6c) show agreement to be with the subject noun phrase. Since these sentences contain just one noun phrase, it is not surprising that agreement uniquely refers to that noun phrase. We will now inquire whether this holds for other sentences with more than one noun phrase.

7a. əhme pen khərid.š.0.
buy
'We will buy a pen.'

7b. əhme pen Ramesh.ne ap.š.0.
to
'We will give a pen to Ramesh.'

8a. əhme pen khərid.ie ch.ie.

'We are buying a pen.'

8b. əhme pen Ramesh.ne ap.ie ch.ie.

'We are giving a pen to Ramesh.'

Sentences (7a) and (8a) have *əhme* as the first noun phrase and *pen* as the second noun phrase, whereas (7b) and (8b) have an additional noun phrase, *Ramesh*. The agreement is in terms of predictable features--Person and Number and with the first noun phrase, *əhme*. Observe the following sentences:

9a. Ramesh pen khərid.t.o hə.t.o.

'Ramesh was buying the pen.'

9b. Ramesh Kishor.ne pen ap.t.o hə.t.o.

'Ramesh was giving the pen to kishor.'

9c. Sudha pen khərid.t.i hə.t.i.

'Sudha was buying the pen.'

9d. Sudha pen Ramesh.ne ap.t.i hə.t.i.

'Sudha was giving the pen to Ramesh.'

Agreement is as expected in these sentences--in Gender and Number, and also with the first noun phrase, *Ramesh* in (9a), (9b) and *Sudha* in (9c), (9d). However, consider the following sentences:

10a. Sudha.e radio khərid.y.o.

'Sudha bought a radio.'

10b. Ramesh.e pen khərid.y.i.

'Ramesh bought a pen.'

10c. Sudha.e radio khərid.el.o.

'Sudha had bought the radio.'

10d. Ramesh.e pen kharid.el.i.

'Ramesh had bought the pen.'

11a. Sudha.e Kishor.ne table ap.y.ũ.

'Sudha gave the table to Kishor.'

11b. Kishor.e Sudha.ne table ap.el.ũ.

'Kishor had given the tablke to Sudha.'

In Gujarati, radio, pen and table are masculine, feminine and neuter respectively. In sentence (10a), Sudha is a feminine noun, and radio, masculine. The ending -o on the verb indicates that agreement is with a masculine noun. Thus, in sentences (10a) to (10d) agreement takes place in Gender and Number with the second noun phrase, radio and pen. Similarly, the ending -ũ on the verb in (11a) and (11b) shows gender-number-agreement with the third noun phrase, table. What we have observed so far can be summarized thus; agreement is with the subject unless a transitive verb occurs with tense markers -y- or -el-, in which event agreement is with the direct object.

III

What we have described so far about verb-agreement in Gujarati is found in any conventional grammar of the language. It will, however, be shown that this is a very incomplete characterization of the process and does not account for several well-formed sentences of the language. We will then argue that a description based on an Accessibility Criterion not only accounts for sentences (1a) to (11b) but for other sentences and, additionally, provides natural explanations for other constructions of the language.

The language has sentences such as the following:

*12a. Ramesh.e penəd.y.i.
touch

12b. Ramesh pen.ne əḍ.y.o.

'Ramesh touched the pen.'

12c. Sudha table.ne əḍ.y.i.

'Sudha touched the table.'

*13a. Ramesh.e pen law.y.i.
bring

13b. Ramesh pen law.y.o.

'Ramesh brought the pen.'

13c. Sudha radio law.y.i.

'Sudha brought the radio.'

14a. Ramesh.e Sudha.ne dhəmkaw.y.i.
scold

'Ramesh scolded Sudha.

14b. Sudha.e Ramesh.ne dhəmkaw.y.o.

'Sudha scolded Ramesh.'

Both (12a) and (13a) are ungrammatical sentences even though they observe the conventional characterization of the verb-agreement process. The corresponding grammatical versions (12b), (12c) and (13b), (13c) differ from the ungrammatical ones by having agreement with the subject noun phrase instead of the object noun phrase. Such sentences demonstrate that verb-agreement in Gujarati is not as simple and straightforward as is implied in the conventional treatment and summarized in the preceding section. It should be added that sentences such as (12b), (12c) and (13b), (13c) are not ignored in previous descriptions; they are assumed to represent idiosyncratic behaviors of *law*-type verbs.[5]

If we re-examine sentences in (10) and compare them with (12b), (12c), (13b), (13c), and (14a), (14b) we find that verb-agreement takes place a) with the object noun phrase in (10) and (14), and b) with the subject noun phrase in (12b), (12c) and (13b), (13c). Sentences (10) to (14) exemplify four possible combinations of two-noun phrase sentences containing noun phrases with and without markers. In (10) the first noun phrase is followed by a marker -*e* while the second has none; in (12b) and (12c) the second noun phrase is followed by the marker -*ne* while the first noun phrase has none; in (13b) and (13c) neither noun phrase has a marker while in (14) both do--the first noun phrase is followed by -*e* and the second by -*ne*. That is,

10. SM $\emptyset$ --agreement with NP_2
12b. $\emptyset$ OM --agreement with NP_1
13b. $\emptyset$ $\emptyset$ --agreement with NP_1
14. SM OM --agreement with NP_2

Where SM = the marker with the first NP and OM = the marker with the second NP.

Notice that the earlier treatment of verb agreement showed a) dependency on tense--agreement with the object noun phrase if the preceding tense marker is -*y*- or -*el*-, otherwise, with the subject noun phrase, and b) dependency on the type of verb-agreement with the subject noun phrase even when the tense is -*y*- or -*el*- if the verb is of the *law* type.

We maintain that the process under discussion is not restricted by tenses or types of verbs but is sensitive only to the accessibility of the subject noun phrase for agreement. The subject noun phrase becomes unavailable for agreement once it acquires a marker of any kind. That is

a. Verb-agreement takes place with the subject.

b. The subject becomes unavailable for verb-agreement when it is followed by a marker.

c. In which case agreement takes place with the object.

Such a description also implies that the presence of a marker on the subject is a matter closely related to which constituent will participate in the verb-agreement process.

IV

In the preceding section it is shown that there are obvious and simple principles, easily describable in terms of Accessibility criterion, which characterize the shift from the subject to the object in the verb-agreement process. We have also seen that alternative ways of treating the verb-agreement process have led to adhoc classification and sub-classification. We will further show that several different considerations strengthen the position advocated in this paper and thereby contribute to the conviction of its validity.

Gujarati has a group of verbs[6] that requires the subject in Dative--indicated by a suffix -ne following the subject noun. For example:

15a. Ramesh.ne pen gəm.y.i.
                    like

'Ramesh liked the pen.'

15b. Ramesh.ne table gəm.y.ũ.

'Rəmesh liked the table.'

In both (15a) and (15b) agreement takes place with the object noun. This could be attributed to the presence of the tense marker -y- on the verb--the conventional position; or to the presence of the marker

-*ne* on the first noun phrase--the position advocated in this paper. But observe the following sentences:

16a. Ramesh.ne pen gəm.t.i hə.t.i.

'Ramesh had liked the pen.'

16b. Ramesh.ne table gəm.t.ũ hə.t.ũ.

'Ramesh had liked the table.'

17a. Ramesh.ne təhme gəm.š.o.

'Ramesh will like you.'

17b. Ramesh.ne əhme gəm.š.ũ.

'Ramesh will like us.'

In these sentences tenses are indicated by -*t*- and -*š*-. The fact that agreement is not with the first but with the second noun phrase can be accounted for only by some adhoc adjustment in the conventional description. On the other hand, agreement in these sentences is a natural consequence of the description suggested in the preceding section. The applicability of our description to these sentences also indicates that the process under discussion operates with uniformity irrespective of differences in tenses or verbs.

Similar arguments can be advanced with many other constructions of the language. For example:

18a. Ramesh pen khərid.wan.o hə.t.o.

'Ramesh was going to buy the pen.'

18b. Sudha radio khərid.wan.i hə.t.i.

'Sudha was going to buy the radio.'

19a. Ramesh.e pen khərid.wan.i hə .t.i.

'Ramesh had to buy the pen.'

19b. Sudha.e radio khərid.wan.o hə.t.o.

'Sudha had to buy the radio.'

20a. Ramesh.e pen khərid.w.i hə.t.i.

'Ramesh wanted to buy the pen.'

20b. Sudha.e table khərid.w.Ø hə.t.Ø.

'Sudha wanted to buy the table.'

Sentences (18a) and (18b) exemplify the Volitional construction indicated by the presence of the morpheme *wan* following the verb; sentences (19a) and (19b) represent the Obligational construction that has the morpheme *wan* following the verb and a marker -*e* on the subject; sentences (20a) and (20b) show the structural pattern associated with the Desiderative construction which has the morpheme -*w*- following the verb and the marker -*e* on the subject.[7] Notice that all the sentences from (18a) to (20b) have an auxiliary *hə*- followed by the tense marker -*t*-. Furthermore, sentences in (18) and (19) have the same element, -*wan*-, following the verb, and sentences in (19) and (20) have the same element, -*e*, following the subject. These sentences provide a good test for deciding whether the agreement process is determined by a tense/aspect morpheme that occurs with a verb, or by a marker inflected on the subject. Phrases entering into an agreement relationship in sentences in (18) and (19) are different, whereas they are the same in sentences (19) and (20). This fact provides additional support for our position that the agreement phenomena is determined not by the particular tense-aspect marker on the verb but by the presence or absence of a marker on the subject.

Gujarati also has a process that converts relative clauses into adjective phrases. Thus

21a. kagəḷ gəi kale aw.el.o.
letter yesterday

'The letter had come yesterday.'

21b. [je *kagəḷ gəi kale aw.el.o* te] kagəḷ...

'The letter which had come yesterday...'

21c. gəi kale awe.l.o kagəl.

'yesterday-arrised-letter'

22a. chokro dərroj aw.e che.
boy everyday

'The boy comes everyday.'

22b. [je *chokro dərroj aw.e che* te] chokro...

'The boy who comes everyday...'

22c. dərroj awto[8] chokro

'everyday-coming-boy'

(21a) and (22a) are simple sentences. The relative constructions (21b) and (22b) have (21a) and (22b) embedded in them. The relative *je* and the correlative *te* are inserted at the two ends of the embedded sentence when the noun phrase of the embedded sentence is identical to the higher noun phrase. Such relative constructions can be optionally converted into the corresponding adjective constructions (21c) and (22c) by the operation of Equi-NP-deletion and the deletion of the relative and correlative elements. The same process applies to sentences containing two noun phrases as in (23) and (24):

23a. chokro pen khərid.e che.

'The boy is buying the pen.'

23b. [je chokro pen khərid.e che te] chokro...

'The boy who is buying the pen...'

23c. pen khərid.t.o chokro

'the pen-buying boy'

24a. chokro table.ne əd.el.o.

'The boy had touched the table.'

24b. [je chokro table.ne əd.el.o te] chokro...

'The boy who had touched the table...'

24c. table.ne əd.el.o chokro

'table-touched-boy'

A sentence that meets the identity condition may be embedded in any noun phrase, resulting in a relative clause. But not all relative clauses can be transformed into adjective phrases. For example

25a. chokra.e pen khərid.el.i.

'The boy had bought the pen.'

25b. [je chokra.e pen khərid.el.i te] chokro...

'The boy who had bought the pen...'

*25c. pen khərideli chokro

26a. chokra.e pen khərid.wan.i che.

'The boy has to buy the pen.'

26b. [je chokra.e pen khərid.wan.i che te] chokro...

'The boy who has to buy the pen...'

*26c. pen khəridwani chokro

27a. chokra.ne pen gəm.el.i.

'The boy liked the pen.'

27b. [je chokra.ne pen gəm.el.i te] chokro...

'The boy who liked the pen...'

*27c. pen gəmeli chokro

28a. chokra.thi pen khərid.a.e che.

'It is possible for the boy to buy the pen.'

28b. [je chokra.thi pen khərid.a.e che te] chokro...

'The boy by whom the pen is being bought...'

There are no adjectival phrases possible from (25b), (26b), (27b) and (28b) even though they are similar to (23b) and (24b). That is, although (23c) and (24c) are perfectly grammatical, (25c), (26c), (27c), and (28c) are not.

One finds, however, that the embedded sentence in (25b) is in the past tense; in (26b) it is an Obligational construction, in (27b), a Dative construction, and in (28b), a Passive construction (see footnote 5.). These embedded sentences differ from those in (23b) and (24b) in one important respect, namely the subject noun phrase has a marker -e or -ne following it. Note that the condition under which a verb does not agree with the subject noun phrase is the same one under which a relative construction does not participate in the adjectivization process. The language, however, has phrases such as the following:

25d. chokra.e khərid.el.i pen...

'The pen bought by the boy...'

26d. chokra.e khərid.wan.i pen...

The pen that the boy has to buy...'

27d. chokra.ne gəm.el.i pen...

The pen liked by the boy...'

28d. chokra.thi khərid.a.ti pen...

'The pen being bought by the boy...'

Such phrases are possible only when the head noun is identical to the object of the embedded sentence. The derivation of these phrases, therefore, would be from relative clauses with the following structure:

25e. [je pen chokra.e khərid.el.i te] pen

26e. [je pen chokra.e khərid.wan.i che te] pen

27e. [je pen chokra.ne gəm.el.i te] pen

28e. [je pen chokra.thi khərid.a.ti che te] pen

The embedded sentences in the above constructions differ from (25a), (26a), (27a), and (28a) in that the objects are in sentence-initial position.[9] This discussion of sentences (21) through (28) demonstrates that the sentences in which the verb agrees with the subject are the same sentences for which we get adjective phrases with the head identical to the subject. And sentences for which we have no similar adjective phrases are those in which the verb does not agree with the subject. That is, adjectivization follows, in every respect, the general rule of the language required for verb-agreement. The reformulation of verb-agreement on the accessibility of the subject thus reveals several seemingly diverse facts of Gujarati to be natural consequences of linguistic regularities.

In search of a deeper understanding of Subject, the beginning of a sentence, we have examined the verb, the end of a sentence--both in locations known for their special effect on our memory and attention. In this examination of verb forms, more specifically, their endings denoting agreement, we enumerated participating features and constituents and hypothesized that Gujarati verb-agreement is determined not by the tense accompanying the verb but by the marker accompanying the subject. We proposed that the subject, whenever it has a case marker, becomes unavailable for agreement with the verb. Such a characterization shows the phenomena to be unrestricted with respect to tenses or types of verb and, additionally, provides a more systematic account of Dative, Volitional, Obligational, Desiderative and Adjectival constructions of the language. We now will look into whether this examination contributes anything of significance to our understanding of Subject.

V

Throughout this paper, we have at times referred to the sentence initial constituent as a subject and, at times, as a first noun phrase without implying any distinction between the two. Furthermore, we have observed that the verb in Gujarati agrees with its subject except when the subject has a marker. This means that the subject in Gujarati has a specific marker as in:

10a. Sudha.e radio khərid.y.o.

'Sudha bought the radio.'

15a. Ramesh.ne pen gəm.y.i.

'Ramesh liked the pen.'

20a. Ramesh.e pen khərid.wi həti.

'Ramesh wanted to buy the pen.'

28a. chokra.thi pen khərid.a.e che.

'The boy could buy the pen.'

When it has no such case marker, agreement is marked on the verb as in:

9a. Ramesh pen khərid.t.o hə.t.o.

'Ramesh was buying the pen.'

13b. Ramesh pen law.y.o.

'Ramesh brought the pen.'

18a. Ramesh pen khərid.wan.o hə.t.o.

'Ramesh was going to buy the pen.'

We also noted that the subject never has both a case marker as well as agreement with the verb. It follows from these considerations that these are the two ways the language codifies Subject: i) sentence initial position, and ii) a specific case marker or agreement with the verb.

The question that arises is whether the subject so codified is a deep subject or a surface subject. It is true that a) a variety of things occur in sentence initial position, b) markers such as -*ne* in (15a) or -*thi* in (28b) are not conventionally recognized as subject markers, and c) it is often maintained that a subject that shows agreement with the verb is a surface subject. The resolution of this question is made more difficult by the notion of deep subject itself. Since there are, at present, different models of grammar, generating structures with different degrees of abstractness, what appears to be a deep subject in one model is not always considered deep enough in another.

We claim that Subject in Gujarati refers to the noun phrase that appears at the beginning of a sentence that has in its derivation, (carried out in the framework of the standard theory) not undergone a permutation transformation affecting the sentence initial noun phrase. Such a subject coincides with the underlying or deep subject of Chomsky, 1965.

Firstly, there are no superfluous subjects in Gujarati of the type it or there as in (29a), (30a) and (31a)

29a. It is raining

30a. It is true that Ramesh is sick.

31a. There is a book on the table.

Their counterparts in Gujarati are expressed as follows:

29b. wərsad pəḍe che.
rain fall

'Rain is falling.'

30b. Ramesh mǎdo che e wat saci che.
sick is that story true

'Ramesh is sick--that story is true.'

31b. table pər ek copdi che.
on one book

'One book is on the table.'

Secondly, the permutation of constituents is not free in Gujarati, but is carried out for a specific function--namely for thematization. For example,

32a. radio table pər che.

'The radio is on the table.'

33a. table pər radio che.

'On the table is the radio.'

In (32a) we have Subject-Location-Verb, and in (33a), Location-Subject-Verb. It would not be correct to say that (32a) means the same as (33a). Sentence (32a) is about radio, whereas sentence (33a) is about table. Notice their corresponding negatives.

32b. radio table pər nəthi.
is not

33b. table pər radio nəthi.

Sentence (32b) implies that the radio is not on the table, it is somewhere else. On the other hand, sentence (33b) means that the radio is not on the table, something else is. Thus, the presence of a particular constituent in the sentence initial position indicates that that constituent is the theme of the sentence. When no permutation is applied, the underlying subject is the theme.

When a permutation displaces the subject it doesn't cease to be the underlying subject, it only ceases to be the theme of the sentence. For example, it is possible to have an agreeing noun phrase made up of several nouns of conflicting gender. Consider the following:

34a. təpal.mã ek copḍi,ek kag əḷ əne ek chapũ aw.y.ũ.
mail in one book letter newspaper

'A book, a letter and a newspaper came in the mail.'

34b. təpal.mã ek kagəḷ, ek chapũ əne ek copḍi aw.y.i.

'A letter, a newspaper and a book came in the mail.'

34c. təpalmã ek chapũ, ek copḍi əne ek kagəḷ aw.y.o.

'A newspaper, book and a letter came in the mail.'

In these sentences the noun phrase under consideration is made up of three nouns: kagel, a masculine, copdi, a feminine and chapũ, a neuter noun. The verb in such sentences agrees in gender and number as in (4). In (34a) the ending on the verb represents Neuter. Sentences (34b) and (34c) differ from (34a) only in that the conjoined elements are rearranged; however, we find that the order of the elements of the noun phrase affects agreement--the verb agrees with the last of the conjoined nouns. Sentences (35a), (35b) and (35c) show that the same agreement process is at work in sentences with two noun phrases, and where agreement is with the object noun phrase:

35a. Ramesh.e ek radio, ek pen əne ek table khərid.y.ũ.

'Ramesh bought a radio, a pen and a table.'

35b. Ramesh.e ek pen, ek table əne ek radio khərid.y.o.

'Ramesh bought a pen, a table and a radio.'

35c. Ramesh.e ek table, ek radio əne ek pen khərid.y.i.

'Ramesh bought a table, a radio and a pen.'

It should be noted that speakers also accept and use neuter plural forms such as *awyã* for (34a), (34b) and (34c); and *khərid.y.ã* for (35a), (35b) and (35c). It appears that speakers have, in this area, two competing principles available to them. Similarly,

36a. Ramesh.ne radio, pen əne table gəm.y.ũ.

'Ramesh liked the radio, the pen and the table.'

36b. Ramesh.ne radio, pen əne table gəm.y.ã.

Here, agreement is with the object, since the subject has a dative marker -*ne*. The object noun phrase consists of three nouns of conflicting gender, and the verb agrees either with the last noun, or with the whole noun phrase, as observed earlier. Hence, both (36a) and (36b) are possible sentences of the language.

We also examined sentences such as:

12b. Ramesh pen.ne əd.y.o.

'Ramesh touched the pen.'

where the verb agrees with the subject, *Ramesh*. It is also possible to have:

37a. Ramesh, Sudha əne baḷək table.ne əḍyã.

'Ramesh, Sudha and the child touched the table.'

*37b. table.ne Ramesh, Sudha ane baḷək əḍ.y.ũ.

37c. table.ne Ramesh, Sudha ane baḷək əḍ.y.ã.

Sentence (37a) differs from (12b) in having three nouns of different genders as its subject. Consequently, agreement is in terms of the whole noun phrase. In sentence (37c), a permutation transformation has made table the theme of the sentence, making the sentence superficially similar to (36b). But the variant of (36b), i.e. (36a), is an acceptable sentence in the language, whereas (37b), the corresponding variant of (37c) is not. This is so because the noun phrase containing conjoined nouns in (37c) is the original subject of a transitive verb. The displayed subject, thus, does not take over the characteristics associated with the new location but keeps its characteristics intact.

A final point is that no process in Gujarati, that we know of, promotes another constituent to Subject and demotes the original subject. That is, there are no constructions of the English passive type in Gujarati. This will sound strange since Gujarati is reported to have passive constructions (Cardona: 116–118).

We will restrict our discussion to passivization phenomenon and argue that (a) the original object is not promoted to subject position, (b) the original object remains object, and (c) the original subject remains subject. Consider the following sentences:

38a. Ramesh pen khərid.š.e.

'Ramesh will buy the pen.'

38b. Ramesh.thi pen khərid.a.š.e.

'Ramesh will be able to buy the pen.'

Sentences like (38b) are considered passive constructions, and differ from corresponding non-passive versions (38a) by having -*a*- on the verb and -*thi* on the subject. The verb agrees with the subject noun, Ramesh, in (38a). On the other hand, the verb in (38b) agrees with *pen* and not with *Ramesh*. If the verb always agreed with its subject, then one could argue that in (38b) *pen* has become the derived subject. However, as we observed earlier, agreement can be with the object.

39a. Ramesh.e pen khərid.y.i.

'Ramesh bought the pen.'

39b. Ramesh.thi pen khərid.a.y.i.

'Ramesh could buy the pen.'

In (39a), agreement is again with *pen*. In order to maintain an identical relationship between the verb *khərid* and the noun *pen* in both (38a) and (39a), we have to recognize *pen* as the object in both sentences. Note in (39b), the 'passive' version of (39a), agreement is also with *pen*. This demonstrates that the original object does not become the subject in passive constructions (38b) and (39b). Consider the following sentences:

40a. Sudha.e Dilip.ne bəhu na dhəməkaw.y.o.
a lot not scold

'Sudha did not scold Dilip to much.'

40b. Sudha.thi Dilip.ne bəhu na dhəməkaw.a.y.o.

'Sudha could not scold Dilip too much.'

The ending -*o* on the verb shows agreement with a masculine noun, *Dilip*, which is the object in (40a) and (40b). In both sentences, the object marker -*ne* (homophonous with the dative marker -*ne*) is also present with *Dilip*. Sentence (40b) is a 'passive' construction corresponding to (40a). The retention of the object marker -*ne* with Dilip in (40b) clearly demonstrates that the original object remains the object in 'passive' constructions.

Additionally, the details of conjunction show that the original subject continues to behave like a subject. We find that when two sentences are conjoined the first of the identical subjects is deleted, as exemplified in the following:

41a.	Kishor.ne	jo.š.e	eṭle	Ramesh	aščəry	pam.š.e.
		see	therefore		surprise	acquire

'On seeing Kishor, Ramesh will be surprised.'

41b. [Ramesh Kishor.ne jo.š.e] eṭle Ramesh aščəry pam.š.e.

'Ramesh will see Kishor, therefore, Ramesh will be surprised.'

42a. [Kishor Ramesh.ne jo.š.e]eṭle Ramesh aščəry pam.š.e.

'When Kishor will see Ramesh, Ramesh will be surprised.'

*42b. Kishor jo.š.e eṭle Ramesh aščəry pam.š.e.

(41b) consists of two sentences with Ramesh in both of them. Sentence (41a) has the same meaning as (41b), although it has only one occurance of Ramesh. We propose that the language, under Identity Conditions, converts sentences such as (41b) into (41a). That is, Ramesh of the first sentence is deleted if it is identical with Ramesh of the second sentence. We find that sentence (42a) also consists of two sentences with Ramesh in both of them. The deletion of Ramesh from the first sentence gives us (42b), which is ungrammatical. We notice that Ramesh is the subject in both of its occurances in (41b), whereas the first Ramesh of (42a) is an object and the second Ramesh, a subject. The deletion under identity takes place in (41b) but not in (42a) because the identity condition includes identity of relationship or of function.

Now, consider the following sentences:

43a. copḍi na wə̃ca.y.i eṭle Ramesh khub rəḍ.y.o.
book not read

'Ramesh cried a lot because he could not read the book.'

43b. [Ramesh.thi copḍi na wə̃ca.y.i] eṭle Ramesh khub rəd.y.o.

44a. copḍi na wə̃c.a.y.i eṭle Ramesh.e pərikša na apoy.i.
test

'Ramesh did not take the test because he could not read the book.'

44b. [Ramesh.thi copḍi na wə̃c.a.y.i] eṭle [Ramesh.e pərikša na ap.y.i].

A comparison of (43b) and (44b) with (41b) shows that they all contain two sentences, but that the first sentence in (43b) and (44b) is a passive construction. (43b) and (44b) are also underlying sentences for (43a) and (44a) respectively. These derived sentences differ from their underlying counterparts by not having Rameshthi at the beginning. The condition on deletion, which we observed earlier, indicates that the deleted Rameshthi must still be a subject.

This condition of deletion appears to operate on other constructions in a similar fashion. (45a) and (46a) are possible sentences in the language.

45a. Sudha na gəm.y.i eṭle Ramesh Meera.ne pəraṇ.y.o.
like marry

'Ramesh married Meera because he did not like Sudha.'

45b. [Ramesh.ne Sudha na gəm.y.i] eṭle [Ramesh Sudha.ne pəraṇ.y.o].

46a. Chokri gəm.y.i eṭle Ramesh.e Kishor.ne kagəḷ ləkh.y.o.
girl write

'Ramesh wrote a letter to Kishor because he liked the girl.'

46b. [Ramesh.ne chokri gəm.y.i] eṭle [Ramesh.e Kishor.ne kagəḷ ləkh.y.o].

*46c. [Kishor.ne chokri gᵊm.y.i] eṭle [Ramesh.e Koshor.ne
kagᵊḷ lᵊkh.y.o].

Underlying sentences (45a) and (46a) we have (45b) and (46b), respectively. In (45b), the subject of the first sentence is in Dative, and that of the second, in Absolutive. Similarly, the subject of the first sentence in (46b) is in Dative, and of the second, in Agentive. In both instances, deletion takes place indicating that it is the relationship and not the marker that the process is sensitive to. It is precisely for that reason that (46c) could not be a possible underlying form of (36a), although the object *kishorne* of the second sentence in (46c) looks similar to the dative subject, *Kishe.ne*, of the first sentence. That is, the two occurances of *Koshorne* in (46c) are not considered identical, but *Ramesh.ne* and *Ramesh.e* in (45b) are. The identity, thus, is not of form but of relation.

It is not an accident but because they express an identical grammatical relationship that forms such as *Ramesh.e* of (10b), *Ramesh-thi* of (10e), and *Ramesh-ne* of (15a) occur in sentence-initial position in neutral (non-permuted) sentences. We conclude that if Subject is to be understood as an underlying grammatical relationship between a noun and a verb, then the noun which occurs sentence initially and is either marked for case (-*e*, -*ne* or -*thi*), or is in agreement with the verb, is such an entity.

FOOTNOTES

[1] This is neither the only phenomenon nor in any way more important than others that provide insight and understanding about Subject. It is only for an heuristic reason that this paper is restricted to verb-agreement.

An adequate and precise characterization of agreement would undoubtedly require investigation of several other factors, including the nature, number and ordering of rules. We have attempted to characterize only those aspects of agreement that seem necessary for the present purpose.

Attention is also drawn to Morgan who, in a well-argued fashion, maintains that even for English, which does not have verb agreement on as extensive a scale as many other well-known and less-known languages, the process of verb agreement 'is a tough nut for any theory to crack' (Morgan: 278).

[2] Throughout, the terms subject noun phrase, subject noun or, simply, subject are used interchangeably.

[3] This is a non-terminal representation. Forms with the tense-marker -y and gender-marker -i are given here in this shape for the sake of transparency. A later rule converts forms such as aw.y.i into awi.

[4] For some discussion about the auxiliaries ch- and hə- in Gujarati, cf. Joshi. A detailed account of Tenses, Aspects, Modals and their combinations along with Auxiliaries in Gujarati can be found in

Cardona (1965), or in Mistry (1969).

[5] The situation exemplified by sentences in (10) and (13b), (13c) actually exists. There is a group of verbs such as *law* 'bring', *bol* 'utter', *šikh* 'learn', *bhan* 'study', *səməj* 'understand', and *cuk* 'miss' that requires agreement with the subject even when the tense-marker is -*y*- or -*el*-. But the restricted nature of the differences between the two groups of verbs is evident in the following:

10e. Ramesh.thi pen khərid.a.y.i.
'Ramesh could buy the pen.'
13d. Ramesh.thi pen ləw.a.y.i.
'Ramesh could bring the pen.'

That is, sentences conventionally recognized as passives display identical characteristics-- -*a*- with the verb, -*thi* on the subject, and verb-agreement with the object.

[6] These are verbs of sensation such as *dukh* 'pain', *gəm*- 'like', *khətək* 'prick', *sujh*- 'be inspired', *bhaw*- 'like' (the taste of), etc. Such verbs are also labelled impersonal in traditional descriptions, cf. Cardona (1965:109).

[7] It is only in Southern Gujarati that we find agentive -*e* in Obligational and Desiderative sentences like (19a) through (20b). Elsewhere, the Dative -*ne* occurs in such constructions. This variation, however, is inconsequential as far as the agreement process is concerned.

[8] It is argued that the underlying form of *awe* of sentence (22b) is *awto*; and the underlying form turns up in many related con-

structions such as (22c). For support of this position, cf. Mistry (1969:80-90).

[9] We do not attribute this permutation of subject and object to 'free order' but to the result of the thematization process. The constituent that is at the beginning of a sentence expresses the theme of the sentence. It is only when the theme of an embedded sentence is identical to the noun of the matrix sentence that the insertion of the relative and the correlative elements takes place. This process is referred to again later in this paper. For some insightful discussion of the notion of theme and the process of thematization cf. Kuno (1973:243-260).

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The Notion of Subject
and
The Data From Nepali

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What I propose to discuss is basically exploratory in nature, involving considerations that seem to be very relevant to an overall determination of the question of 'subject'. This, of course, is done in the belief, and hope that it is possible to arrive at a workable notion of subject, at least for South Asian languages, if not for all human languages. If it becomes possible to show that a unified notion of 'subject' can work for a group of genetically and areally related languages, then the hope for the universality of this notion is certainly advanced further. By the same token, a negative conclusion in this regard would perhaps save us all a lot of time and effort in pursuing a non-existent universal.

There are quite a few general questions that could be raised about the notion of 'subject'. One of the very relevant ones is simple this: What do we need it for? How is such a notion crucial to our analysis? What are the grammatical processes or transformations that will necessarily need to refer to it? No such term has been made use of in the structural indices of the available analyses--at least I am not aware of them.[1] Yet many analyses seem to need to invoke this notion to define the application of certain rules, such as reflexivization, subject-raising, etc.

Another relevant question could be: Is it a syntactic or a semantic element? The answer, I quess, would depend on how one views this dichotomy, and whether or not one believes in the strong version of the Katz-Postal hypothesis and the various proposals modifying it. But one thing is sure; there is a certain ambivalence about it. On the one hand, it is perceived as something akin to the nominative case--marked or unmarked--with the expected properties of, among others, agreement and position; on the other, it is perceived as an agent, with the semantic properties of animateness, volition, etc. As long as these criteria do not clash, things seem wonderful; but in case there is a lack of such a happy coincidence, funny things begin to happen on our way to a satisfying derivation or interpretation, with repercussions in other parts of the sentence or transform possibilities as well. It is then no longer a simple question of determination by the nature of the NP and its grammatical form. A bewildering network of relations begin to seem relevant. One is then motivated to talk about the agent subject, the experiencer subject, the patient subject, the goal subject, the source subject, the locational subject, or what have you.

These hyphenated names do make one suspect that there is some deep-rooted a priori commitment to recognizing something as subject, presumably for certain grammatical criteria, and still make certain subclassifications to account for the functional distinctions. It is basically this kind of functional-formal distinction that is sought to be captured in various models, such as, the Karaka vs. the Vibhakti of the Sanskrit grammarians, the deep vs. surface cases of Fillmore, or the Thematic Relations of Gruber.

With these comments as a background, I would attempt to draw your attention to some aspects of this notion in Nepali. This is to be looked upon primarily as enrichment of relevant data because Nepali raises many of the same questions as some other South Asian languages do. There are interesting differences, too, which may at least point to the irrelevance of some analytical hang-ups shown in regard to other South Asian languages.

Nepali, like many other Indic languages, has a number of vibhaktis which characteristically mark certain cases. The three important ones for our discussion are: le, laai, and baata which mark the putative subject, object, and instrumental respectively, in very much the same way as the ne, ko, and se of Hindi. In addition, it would be useful to note that Nepali has a more pervasive and regular system of morphologically passive verbs than Hindi--verbs which are morphologically akin to a form like caahiye or dikhnaa of Hindi. Thus many comparable nouns in Nepali do not have to undergo the ignominy of being branded 'derived' subjects as in the case of Hindi for similar functions.

The Vibhakti le, like the Hindi ne, is used to mark the subject of transitive verbs in the perfective aspect, but with one very important difference. Unlike Hindi, the subject in Nepali even in that case does not lose its right to force agreement for number and gender in the verb. Notice the variations in the verb ending in:

1.	mai-le	bhaat	khaayen
	I-subj marker	rice	ate-1p.sg.
	I ate rice		
2.	us-le	bhaat	khaayo
	He-subj marker	rice	ate-3p.sg.
	He ate rice		
3.	haami-le	bhaat	khaayaun
	We-subj marker	rice	ate-1p.pl.
	We ate rice		

4. timi-le bhaat khaayau
You-subj marker rice ate-2p.pl.
You ate rice

In so far as agreement in the verb is treated as very supportive evidence for identifying the subject NP in a sentence, this is very helpful. But notice that in all the standard analyses of Hindi, the fact that ne precludes agreement between the verb and what is perceived as the subject, and instead forces agreement with what is perceived as the object is completely ignored in the determination of the subject. I am bringing it up here only to emphasize the non-relevance of both the 'vibhakti' and 'agreement' to the question of subject determination. Yet, curiously enough, many otherwise competent and sophisticated analyses have difficulty getting over such considerations. A very popular analysis for Hindi would describe sentences like "Kitaab mujhko acchii lagii" and "wo mujhko bewaqoof lagaa" as having the first NP as the subject. Since this point has been discussed by me and others (e.g. Van Olphen) elsewhere,[2] I will not go into that here.

le turns out to be a resilient subject marker and refuses to disappear even in non-finite constructions the parallel of which would involve the kaa-naa complementizer in Hindi:

5. ma Shyaam-le aaphno bhaai-laai dukh dieko
I Shyam-subj marker poss. reflex brother-dat. trouble give-past perfective
ucit maandina
proper consider-1p.-neg.
I do not consider it right for Shyam to be mean to his brother.

The above does embed the non-finite form of the embedded clause. However, one may think that since the participial dieko has the perfective aspect, the occurrence of le should not be totally surprising. But notice the following:

6. ma Shyaam-le aaphno bhaai-laai dukh *dine*
give-infinitival pcple.
kuro ucit maandina
thing

(same as above)

7. ma Shyaam-le aaphno bhaai-laai dukh *dina* ucit maandina
give-infinitive

(same as above)

In all of the above sentences, the non-finite verbal is in the infinitival form but the subject marker *le* is still retained, unlike Hindi where the subject marker *ne* will be replaced by the genitive *kaa*.

I just want to mention here in passing a related situation in Hindi where the inconvenient grammatical form of what does seem like a subject becomes a factor in rejecting such a possibly satisfying analysis. In Hindi, while -aa and -taa (verbal forms) are readily accepted as aspects (and participials), the -naa form as in "mujhko jaanaa hai" 'I have to go' is not. I have argued elsewhere that it should be.[3] -naa stands for the proximate future aspect just as -aa and -taa indicate the past perfective and present imperfective aspects respectively. They match one another's syntactic behavior, too, for example as modifying participials, etc. The biggest disqualification, of course, is the fact that unlike the other two, the infinitive requires a dative *ko* with the NP, and the agreement is skewed. Curiously enough, the fact that *ne* does the same thing is disregarded. Now, here, in the Nepali data, we find that the -*nu* which is equivalent to the Hindi -*na* does take *le*, the putative subject marker, in parallel constructions. Notice that even for a dative construction like "mujhko jaanaa caahiye" or "mujko jaana hai", Nepali retains *le*:

8. mai-le   jaanu   parcha
I-subj marker   go-inf.   falls-3sg.pres.indic.
I have to go

Notice also that it is not true that Nepali does not have an element like the Hindi dative ko available to it. It does, as in:

9. ma-laai   thaahaa   cha
I-dative   knowledge   is-3sg.pres.
I know (it)

10. ma-laai   jaanu   paryo
I-dative   go-inf.   fall-3sg.past
I had to go

But in this particular case it uses le to mark the subject as against the dative ko in Hindi. I am thus not sure how much significance can be given to such post-positional selections for the purposes of deep-level analysis and the determination of the question of subject in the sentence. But such considerations have certainly played a part in many analyses, perhaps unwittingly.

The syntactic role of le, however, is not fully exhausted in this manner. Consider the following forms:

11. hathora-le   khola
hammer-?   open-imper.
Open with a hammer

12. ma   camcaa-le   bhaat   khaanchu
I   spoon-?   rice   eat-1p.sg.pres.
I eat rice with a spoon

13. ma   kalam-le   lekhchu
I   pen-?   write-1p.sg.pres.

Here it certainly looks like a post-positional marker of instrumentation, and one may certainly be tempted to say that it just irrelevantly happens to be homophonous with the ergative le. One does have to remember, though, that Nepali has a very clearly identifiable instrumental post-position baata which matches the many instrumental uses of the Hindi se.

In addition, also consider the following:

14. khoki-le sataayo
cough-*le* trouble-3sg.past perf.
Cough troubled (someone)

15. khoki-le sataauncha
cough-*le*
Cough troubles

16. curut-le dhit maarcha
cigarette-*le* appetite kills
Cigarette kills appetite

17. kamij-le ma-laai raamro paarcha
shirt-*le* I-dat. good render-3sg.pres.
The shirt makes me look good

18. yas rukh-le bagainca-laai raamro paarca
This tree-*le* garden-dat. good render-3sg.pres.
This tree makes the garden look good

19. ghari-le samay dekhaauncha
clock-*le* time show-3sg.pres.
The clock shows the time

20. batti-le ujyaalo paarcha
lamp-*le* light render-3sg.pres.
The lamp causes light

21. *raam-le ma-laai raamro paarcha
Ram makes me look good

22. *raam-le samay dekhaauncha
Ram shows time

23. ram samay dekhaauncha
Ram shows time

While the first sentence on the list above is in the perfective and thus a *le* is quite naturally expected, all the other sentences have the verb in the present simple. The NP before *le* *is* the subject, which is clearly indicated by its agreement with the verb. That it is not the instrumental NP in some sort of an intransitive construction is clearly indicated by the transitive stem of the verb. One interesting thing common to all these sentences is that all the NP's before the *le* are inanimate. Animate subjects with *le* are fine in the perfective but not fine in any other aspect as can be seen in the starred sentences. What can we conclude from this evidence? To me it seems that *le* is certainly the marker of some sort of agency in all its uses. We may perhaps accept the concept of a 'secondary' agent. An inanimate noun by definition is not a first-order agent, an animate noun can be, and remains unmarked in that role (except in the special case of the Indic ergative construction for which there are probably historical reasons). Any other role for an animate noun is obligatorily marked. This can be seen clearly in the obligatory marking of the animate object as opposed to the inanimate object in both Hindi and Nepali. On the other hand, in Nepali, if the inanimate object does assume some sort of agency role, which is not inherent for it, it does get to be marked. If the animate agent for whatever reason, such as passivization or topic shift, happens to get demoted, then it becomes marked--by *se* or *ke* *dwaara* in Hindi and *baata* in Nepali. Notice further that there still remains a difference--even in the case of demotion--between the inherent agency of an animate noun and the secondary agency of an inanimate noun. In such demoted constructions, typically, *baata* will be used with the animate, and *le* with the inanimate, as in the following passive constructions:

24. raam-baata yo kothaa saphaa garaaiyo
Ram-*baata* this room clean do-caus-pass-3.past
*raam-le yo kothaa saphaa garaaiyo

25. Koocaa-le yo kothaa saphaa garaaiyo
broom-*le* this room clean do-caus-pass-3.past
*Koocaa-baata yo kothaa saphaa garaaiyo

This is the valid conceptual structure which will make *raam-le* in (24) and *koocaa-baata* in (25) wrong. But they will be accepted with possible readings if *raam* were the noun of an inanimate agency and *koocaa* that of an animate agency. By the same token, in accordance with this conceptual structure, it may not be entirely out of the question, though very rare, to assign a greater degree of agency than inherent in an inanimate noun by using baaṭa. Thus,

26. duudh-le keṭaa-haru-laai poscha
milk boy-pl.-dat. nourish-3sg.pres.
Milk nourishes children

and the passive:

27. duudh-le ketaa-haru posinchan
milk boy-pl. nourish-passive-3.pl.pres.
Children are nourished by milk

will be the normal thing. If one wanted to be slightly philosophical and assign a vital and direct role to milk and personalize it, one could presumably say:

28. ?duudh-baaṭa keṭaa-haru posinchan

What I have just said almost leads to an idea of 'degrees of subjecthood'. I have not worked this out in detail but it does not seem such an unreasonable and outlandish idea. I would simple throw out certain suggestions here for your consideration. There could be various factors which play a role in it, and possible there would be some sort of hierarchy in regard to these factors. The most important, it seems to me, would be the 'inherent potentiality' of an NP for subjecthood which of course would have to interact with many other factors. If passivization is looked upon as a subject promotion device (for the original object), we could certainly look upon such derived subjects as second-class subjects, which probably would lack some of the true subject qualities. As a matter of fact, one could surely look upon the distinctions of agent subject, patient subject, goal subject, and source subject, etc., as creating distinctions of degree. Most people would consider an agent subject a subject par excellence as it tends to satisfy all the semantic and grammatical expectations in a subject. Elements of the conceptual structure such as 'topic' or 'focus' would promote one NP over another leading to some skewing of the inherent roles and to appropriate adjustments in the syntactic structure including adjustments in Vibhakti assignment. Similarly, an element like 'stativeness' can trigger a chain of adjustments in the grammatical expressions of various elements including the subject, which will no doubt interact with and/or incorporate certain other features like 'control', 'focus', 'discourse prominence', etc. Thus, while "I know it" and "I found out" are both grammatically active-looking sentences in English (not necessarily so in their deep structure relations), Nepali, like Hindi, would show the difference through the well-known device of indirect-subject construction:

29. ma-laai thaahaa cha
I-dat. knowledge is
I know (it)

30. mai-le thahaa paaen
I-nom? knowledge obtained
I (have) obtained knowledge (of it)

31. ma-laai man parcha
I-dat liking fall-3sg.pres.
I like (it)

32. ma man paraaunchu
I liking fall-trans. -1p.sg.pres.
I am making a selection according to my liking

English, of course, will show this distinction through restrictions on the transform possibilities of the constructions involving 'know' and 'like' rather than by any overt difference in the form of the subject.

There is no doubt that the relationship is a little more transparent in this South Asian language, but for the same reason one may be unwilling to accord the dative the status of a subject, or at best simply call it a 'locational subject'. But this looked upon as a syntactic device very neatly explains how by demoting a real subject from its agentive, active role by causing it to be a dative rather than a nominative, one makes it lose its position of action and control and, maybe, even discourse prominence. The result is a non-active, stative construction in which this subject is no more than an appendage to the rest of the sentence which can easily stand all by itself without it. I should think this demotion (as to the rank of subjecthood) by dativeness is true of all indirect subject constructions, particularly the dative subject constructions of South Asian languages.

"Volition" is beginning to be increasingly recognized as an important ingredient in the determination of subject and active-transitive sentences in English, as for example in Jackendoff (1972).[4] If I may say so myself, I did use this concept quite some time ago in my review of Kachru (1966)[5] to say that the transitive verbs of Hindi are characteristically volitional and are thus incompatible with subjects that are incapable of volition, typically, inanimate nouns. Thus while it is quite easily possible in English to say something like "This hammer broke the window," or "The bus ran over him and killed him," or even "My girdle is killing me," a comparable expression is not possible in Hindi or in Nepali. In all such cases, Hindi and Nepali will typically use a non-volitional intransitive verb of which the object theme can be the grammatical subject. For the subject of the English sentence above, it will use, as expected, an instrumental NP. The instrumental NP can simple be looked upon as a low-grade subject, which does not have at least one very important ingredient of a red-blooded agentive subject, namely, volition. This observation does get further support from the fact that it is not necessary to involve only an inanimate noun for this construction to be possible. If a noun which is potentially volitional occurs, but without involving any volition in the act described, then that animate noun also is relegated to the instrumental form. Thus we get both:

33. hathore-se khirkii ṭuuṭ gayii
hammer-instr. window broke

and:

34. mujh-se khirkii ṭuuṭ gayii
I-instr. window broke

in which the second sentence, (34), will typically be translated into English as "I broke the window, unintentionally," The corresponding Nepali sentences will be:

33a. hathoraa-le jhyaal bhaanciyo
hammer-le window broke

34a. ma-baata jhyaal bhaanciyo
I-baata window broke

Notice that interestingly enough, in accordance with what has already been observed for Nepali, Nepali does make a distinction between the inherent potential agency or volition of the animate noun by using the post-position baata as opposed to le used with 'hathoraa'. Thus, (35) would be an odd expression unless one imputes a decision capability to the hammer:

35. *hathoraa baata jhyaal bhaancio
hammer-baata window broke

In passing, I do want to mention that I am not implying that English has no device for expressing the distinction of volition. Only its devices are different. For example, for a verb like 'touch' or 'hit' which can have both a volitional and a non-volitional interpretation, the passive transformation will be possible only for the volitional interpretation. Another example of this distinction will be in the use of the instrumental prepositions 'by' and 'with' (because with implies a volitional presence). One would normally say "He was hit by a car." "He was hit with a car" gives the impression that someone held a car in his hand--maybe a toy car--and hit him with it. By the same token. "He was hit by falling rocks" is a perfectly acceptable expression whereas "He was hit with falling rocks" is an odd one because of the sense of accident inherent in the action described.

For somewhat different considerations, consider the pair of sentences "I took it from him" and "I received it from him". Both look like the same grammatical construction in English. But they are not in Nepali (or Hindi), as far as the form of the first person pronoun is concerned.

36. mai-le us-baaṭa yo liyen
I-le he-from it took
I took it from him

37. ma-lai us baaṭa yo milyo
I-to he-from it obtained
I received it from him

What happened? Both have animate nouns, and in Gruber's terms both even have the same thematic relation of 'goal' (as opposed to a possible difference of 'goal' and 'source' in the case of the verbs 'take' and 'give'). But there is indeed a difference. The first one is truly an active agent with 'volition', the second one is a non-volitional recipient. This difference is clearly shown in Nepali but not in English. But that this difference is not quite irrelevant to English is reflected in such sentences as:

I took it from him on purpose

and

?I received it from him on purpose.

In a sense, what is involved here is that the I of the first sentence is more of a subject that the I of the second sentence, which makes the second I incompatible with an adverbial like 'on purpose'. But this difference in the degree of subjecthood is indeed due to the (semantic) content of the predication involved. So obviously this plays a role, too.

There can, indeed, be a variety of such factors. While the verbs in the English sentences above are both transitive, the ones in the Nepali sentences (36) and (37) are transitive and intransitive, respectively. But even in the case of two intransitive verbs, constructions might differ depending on the content of the predication. With an intransitive verb of perception like laagnu 'seem', one would get "ma-lai laagcha" whereas with another intransitive verb like baninu 'to be made', one would get "ma-baaṭa baniyo", indicating different roles for the subject in relation to the content of the verb. The opposite of this situation would be a case in which a verb with basically the same semantic content is chosen, but the constructions differ because of the grammatical form of the verb. For example, if paaunu 'to get' is chosen instead of milnu, it will result in an active construction like

38. mai-le us-baata yo paayen
I-le he-from it get
I got it from him

This is simply because the verb is transitive -- a matter of form and not content. Obviously then there arises the question of hierarchy among these several factors and the question of determining the chain of reaction. If a language has available to it morphologically related transitive-intransitive or active-passive forms, then the choice of one or the other may be made with whatever it may correlate with in the conceptional structure--things like discourse prominence, focus, unintentionality, or whatever. Forms of the subject thereafter may be a matter of automatic consequence. This has been taken note of by Indian grammarians in the form of 'kartṛ vaacya', 'karma vaacya' and 'bhaava vaacya' distinctions, and the alternating 'ātmanepadam' and 'parasmaipadam' constructions with varying vibhaktis but without affecting the 'kāraka'. 'Kāraka' for Sanskrit grammarians denotes the relationship of the substantive to the *verb.*

Conclusion

There are really no firm conclusions, but there certainly are suggestions for lines of further investigation. There does not seem to be much doubt that 'subject is a derivative concept rather than a primary one; that there can be degrees of subjecthood; that there are various grammatical devices to express the subject that will correlate with the various kinds of subject potentials in the conceptual structure. For example, the grammatical nominative does have a very high degree of correlation with the animate, the agentive and the volitional. But these are further mediated by the form and content of the predicate and such elements of the conceptual structure as focus, topic, volition, stativeness, control, etc. Shifts in them will demote or promote the natural or unmarked correlation for a language.

This in a sense means that there are no à priori subjects as such; there are only various orders of subjectivizable entities. And there are various ranks of subject expressions grammatically. A term like subjectivization may be taken to refer to a number of diverse operations to promote (all the way or part of the way) something to the status of a putative grammatical subject. But this by definition means that the thing so promoted is either not inherently subject material or very poor quality subject material which will not surface as a subject unless special conditions are created by the presence of other linguistically significant factors.

The exact nature of the correlation will, of course, vary from language to language. But here, too, probably a great deal, though not all, of the natural or unmarked correlation will be common to most languages. The demotional or promotional devices triggered by shifts will almost certainly be language-specific. A sub-family like Indic or a sub-group like South Asian should be characterized by a very high degree of sharing of even these language specific devices.

If all this seems too confusing and not as neat as one might like this notion to be, we do have a perfectly respectable alternative, namely, to say that there is really no such thing as subject. After all, for Panini, there exists no grammatical category corresponding to 'subject'.

Notes

1. To be sure, it has appeared, marginally, as a feature, for example in Chomsky (1965) p. 114 and Stockwell (1973) - several places, including pp. 61, 593-94, etc. Chomsky treats it as an informal notational device, and its use in Stockwell as a rule feature is essentially a convenient naming device for a rule.

2. See Verma (1971a) and Van Olphen (1970).

3. See Verma (1971a) p. 140.

4. See Jackendoff (1972), p. 33.

5. See Verma (1971b), p. 157.

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